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ABSTRACT

This report, presented in three parts, deals with the adequacy of the vocational education system in Illinois and the effectiveness of the state's initiatives. The first part of the report addresses the adequacy of the Illinois system in meeting the purpose of the Carl D. Perkins Vocational Education Act of 1984. The system's adequacy is reviewed as it relates to the process used to improve vocational education quality and the process used to align vocational education programs with future and existing work force needs. Part 2 examines the effectiveness of a variety of Illinois initiatives in providing high quality vocational education. Illinois' success in meeting existing and future work force needs is also addressed. Program results, in terms of productivity and economic growth enhancement, are discussed. Part 3 includes the Illinois Council on Vocational Education's conclusions, suggested actions, and recommendations. Forty tables are included in the report. (KC)

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Improving Vocational Education Quality

REPORT 8

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ILLINOIS COUNCIL ON VOCATIONAL EDUCATION
1987-1988

This report is one in a series of 25 technical reports prepared to fulfill mandates of the Carl D. Perkins Vocational Education Act, 1984.

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1987-1988

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Report 3 **ADVICE TO THE PRIVATE SECTOR**

Report 4 **DISTRIBUTION OF VOCATIONAL EDUCATION FUNDS**

Report 5 **ACCESS OF TARGETED POPULATIONS TO QUALITY VOCATIONAL EDUCATION**

Report 6 **EVALUATING VOCATIONAL EDUCATION PROGRAMS IN ILLINOIS**

Report 7 **PRIVATE-SECTOR INVOLVEMENT IN VOCATIONAL EDUCATION**

Report 8 **IMPROVING VOCATIONAL EDUCATION QUALITY**

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TO:
Governor James R. Thompson
Lauro Cavazos, Secretary of Education
Elizabeth Dole, Secretary of Labor
Illinois State Board of Education
Illinois Job Training Coordinating Council

On behalf of the Illinois Council on Vocational Education (ICoVE), I am pleased to submit this biennial report on IMPROVING VOCATIONAL EDUCATION QUALITY.

This report is one of twenty-five prepared by ICoVE to comply with the provisions of the Carl D. Perkins Vocational Education Act and to advise the Governor, State Board of Education, the Illinois Job Training Coordinating Council, the Secretary of the U.S. Department of Education, and Secretary of the U.S. Department of Labor of the ability of the vocational education delivery system to expand, improve, modernize, and develop quality vocational education programs to meet the needs of the nation's existing and future workforce for marketable skills, and to improve productivity and promote economic growth.

This report, presented in three parts, deals with the adequacy of the system and the effectiveness of Illinois initiatives. Readers of this report will find vocational education in a period of considerable transition. The emergence of new programs and the elimination of obsolete programs, coupled with shifting enrollment patterns are typical of a state going through a period of adjustment from a heavily industrial to a largely service economy.

The changing labor, social and economic environments place unique challenges upon the vocational education delivery system. This report gives a first hand account of the view of those working together to establish a continued base of effective programs. It also provides considerable data from the various agencies showing the magnitude of the education for employment needs in Illinois.

One must conclude vocational education has come a long way toward meeting the expectations as envisioned in the Carl D. Perkins Act. Yet much remains to be done. It is toward this end that the Illinois Council on Vocational Education dedicates its energies and efforts.

Sincerely,

Robert M. Beckwith

Robert M. Beckwith

Investing in People

An Equal Opportunity Employer

REPORT 8

IMPROVING VOCATIONAL EDUCATION QUALITY

A Three-Part Report about
Quality Vocational Education

- The Adequacy of the System
- Effectivenss of Illinois Initiatives
- Conclusions, Suggested Actions and Recommendations

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1987-1988

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PREFACE

Passage of the Carl D. Perkins Vocational Education Act of 1984 brought attention to the issue of quality in vocational education. Congress expressed concern for improvement, modernization and programs designed to prepare a workforce competent to succeed in a workplace impacted by technology. Repeatedly, throughout the Act, federal funds were designated to state functions in such a manner as to "drive" state initiatives toward these ends. Substantial increases allocated for program improvement strengthened assurances that the needs and concerns of business, industry, and labor would be met.

The new legislation gave State Councils responsibility for evaluating, every two years, "the vocational education program delivery system assisted under the Act, in terms of its adequacy and effectiveness in achieving the purposes of the Act" [112 (d) (9) (A)]. This report addresses the first purpose stated in the Act:

> ***Expand, improve, modernize, and develop quality vocational education programs in order to meet the needs of the nation's existing and future workforce for marketable skills and to improve productivity and promote economic growth. [Section 2]***

The Act continues by requiring the State Council to "advise the Governor, the State board, the State job training coordinating council, the Secretary [of Education], and the Secretary of Labor of these findings and recommendations."

The report is structured into three major parts. The first part addresses the adequacy of the State's system in meeting the purpose. The system's adequacy is reviewed as it relates to the process used to improve vocational education quality and the process used to align vocational education programs with future and existing workforce needs.

Part two examines the effectiveness of a variety of Illinois initiatives in providing quality vocational education. Illinois' success in meeting existing and future workforce needs is also addressed. Program results, in terms of productivity and economic growth enhancement, are discussed in this and other ICoVE reports. Part three includes ICoVE's conclusions, suggested actions, and recommendations.

This report reviews and examines only those elements of the Illinois delivery system not included in other Technical Reports of ICoVE. Other ICoVE reports which address major components of the quality and workforce needs efforts as part of this Perkins Act purpose include:

Report 18: Technical Committees and Illinois Curriculum

Report 13: Support Services for Students

Report 5: Access of Targeted Populations to Quality Vocational Education

Report 7: Private-Sector Involvement in Vocational Education

In preparing this document, ICoVE relied heavily on information available from ISBE, ICCB, IOICC, and IDES (Illinois Department of Employment Security). Enrollment, participation, and program completion data are from the State Board's vocational education data system (VEDS). Community college data depicting elements not used in VEDS are from ICCB documents (e.g. degrees, certificates, special grants). Configurations of the data for reporting and analysis purposes are ICoVE's unless otherwise noted.

Occupational projections as illustrated on numerous tables throughout the report are those of the Illinois Department of Employment Security (IDES), unless otherwise noted. All discussions of occupational projections and labor force participation are based on IDES projections.

ACRONYMS AND DEFINITIONS

CIP = Classification of Instructional Program
EFE = Education for Employment
ICoVE = Illinois Council on Vocational Education or Illinois Council
IDES = Illinois Department of Employment Security
IOICC = Illinois Occupational Information Coordinating Council
ISBE = Illinois State Board of Education
JTPA = Job Training Partnership Act
LEP = Limited-English-Proficient
LMI = Labor Market Information
Perkins Act = The Carl D. Perkins Vocational Education Act, 1984
QAP = Quality Assistance Plan
RDS = Regional Delivery System
SDA = Service Delivery Area
VEDS = Vocational Education Data System
VIP = Vocational Instructor Practicum (an internship program)

Cooperative Education = a method of instruction of vocational education for individuals who, through written cooperative arrangements between the school and employers, receive instruction, including required academic courses and related vocational instruction by alternation of study in school with a job in any occupational field. The two experiences must be planned and supervised by the school and employers so that each contributes to the student's education and to his or her employability. Work periods and school attendance may be on alternate half days, full days, weeks, or other periods of time in fulfilling the cooperative program. (PL 98-524)

Disadvantaged = individuals, other than handicapped, who have economic or academic disadvantages and who require special services and assistance in order to enable them to succeed in vocational education. (Includes individuals who are members of economically disadvantaged families, who are migrants, who have limited-English proficiency, who have dropped out, or who are potential dropouts. (PL 98-524)

Handicapped = individuals who are mentally retarded, hard of hearing, deaf, speech-impaired, visually handicapped, seriously emotionally disturbed, orthopedically impaired, or have other health impairments. Includes persons with specific learning disabilities, thus requiring special education and related services to succeed in vocational education. (PL 98-524)

INTRODUCTION

THE PURPOSE

The Carl D. Perkins Vocational Education Act of 1984 states as its first purpose that the Act is designed to "assist states to expand, improve, modernize, and develop quality vocational education programs to meet the needs of the nation's existing and future workforce for marketable skills and to improve productivity and promote economic growth." This multifaceted purpose is one of nine purposes to be fulfilled by the Act.

This report is designed to assess how "adequately and effectively" the state's delivery system has fulfilled the first purpose during fiscal years 1987 and 1988. It is organized in three parts.

The first part briefly describes the Illinois system designed to deliver each specific facet of the purposes through quality programs. To do this, the capacity of the system to "expand, improve, modernize, and develop" program components, i.e., instruction, curriculum, and equipment/facilities, is analyzed. Services are also assessed. The Illinois system's capacity to meet the needs of the current and future workforce for marketable skills, improved productivity, and economic growth is reviewed.

The second part of the report highlights the effectiveness of results of various Illinois initiatives. It also overviews the scope of needed initiatives. The report limits its review to those activities not reported in other documents of ICoVE's series of technical reports. References note the location of information in other documents.

Part three contains conclusions, suggested actions, and recommendations for enhancing program quality. These address both the adequacy of the process as described in Part 1 and the effectiveness of the results as described in Part 2.

THE DELIVERY SYSTEM

During 1987 and 1988, Illinois' delivery system was in transition. It was moving from a local district-based system of delivery to a delivery system containing clusters of secondary high schools and area vocational centers working in concert with existing community college districts to deliver programs and services on a regional basis.

This report studies the system under development. The adequacy and effectiveness of the system are evaluated in terms of transition activities leading toward full implementation of the new system and the anticipated capacity of the new delivery system for achieving the purpose once the system is fully implemented.

The newly formed 58 secondary regional delivery systems, 3 state agency delivery systems, along with the 39 existing community college districts are to be fully operational under the State Board's Education for Employment Policy and administrative plan by 1991, with some operational in 1989.

PART ONE

THE ADEQUACY OF THE SYSTEM

EXPAND, IMPROVE, MODERNIZE, & DEVELOP QUALITY PROGRAMS

Illinois has several mechanisms in place that affect programs. Some are designed to provide an ongoing system for revising and revitalizing programs; others are used when programs need to be designed or implemented; and others facilitate expanding the existing programs to serve more people or to provide additional services. An overview of these is provided in the discussions which follow.

EXPANDING PROGRAMS

Program expansion includes both expanding the program content and/or services provided and expanding the program to serve more students. The state plan for vocational education includes allocation of resources for both. A brief listing of expansion mechanisms follows.

- Expanding program offerings. Approximately $500,000 (federal funds) is allocated by the State Board to provide support for adding programs which prepare people for new and merging occupations. (Priority is given to programs in economically depressed areas.)

  Through the regional delivery system (RDS) and community college district planning, needs for new and/or expanded programs can be identified. The system involves needs assessment which incorporates the use of labor market information, private-sector input, and student interests. Needs are identified in RDS and community college plans. Approval for adding new programs or expanding programs occurs at the state level.

  State-level assessment of labor market needs results in developing curriculum for occupational areas new to the state and providing leadership and awareness to encouraging community college districts and regional delivery systems to implement needed new programs. Development activities are accomplished by awarding contracts to eligible recipients to develop the product.

- Expanding program content. Considerable attention, through curriculum initiatives, has been given to infusing academic skills into vocational education course content. Similar efforts are given to integrating concepts related to the work ethic, productivity, job seeking, job retention, and other "employability skills" into vocational education courses and programs. Some have been done with state contracts for development; others have been accomplished through local efforts.

Expanding programs to include additional knowledge concerning technology and computer use was supported by special funding from Title IIB, program improvement. Special grants are provided through the State Board to supplement local efforts.

- Expanding instruction. In-service education for vocational education personnel has provided assistance for integrating additional concepts into the programs being taught. An internship program is in place which attempts to expand the experiences of vocational educators in the private sector. State funds support the internship.

  Funds available from Title IIB, program improvement include both local/regional district development of in-service education priorities and state-level efforts through special grants. Grants are used to disseminate newly developed materials using in-service education activities to assist the educators with implementing the new materials.

- Expanding access. Title IIA funds for special populations help targeted groups overcome barriers to participation and success in vocational education. Funds to local/regional systems and districts provide special services to develop special programs and assist with attracting target populations to the programs.

  State-level initiatives provide for model program development for meeting unique needs of specific groups. State-level initiatives are also used to provided in-service education to help educators acquire special skills needed for working with targeted population groups. Much of the state level effort focuses on increasing the awareness level pursuant to the need.

  The High Impact Training Service (HITS) program is a mechanism through which the private sector can access programs to expand and meet needs of new and expanding business and industry in the state. State funds are provided for the program.

IMPROVING PROGRAMS

The system for improving programs in Illinois consists of both locally driven and state-driven activities. Funds for program improvement come from three sources: 1) Title IIB of the Perkins Act; 2) local funds designated for staff development, curriculum development and equipment acquisition; and 3) state funds for staff development and equipment purchases. Both local and state funds include RDS, community college, ISBE, and ICCB funds. Highlights of the system used to improve programs follows.

(For the purpose of this report, improvement is used to define day-to-day or ongoing enhancement efforts. Modernization is used to describe major renovation activities to provide major updating of programs.)

- Improving local programs. The Quality Assistance Plan (QAP) is a process which allocates program improvement funds to regional delivery systems and community college districts as part of the overall program improvement effort. To receive and use the funds, the entity develops a plan outlining needs and intended expenditures. The State Board approves the plan for expenditure of the funds. The QAP addresses staff development and curriculum. A grant proposal must be written to request equipment funds.

  Involvement of the private sector through advisory councils in developing regional and community college plans is another mechanism which targets program improvement in Illinois.

  When fully developed and implemented, the State Board's new system of program evaluation will identify strengths and weaknesses of Illinois programs. Additional information about the system is described in ICoVE's Report 6, Evaluating Vocational Education Programs in Illinois.

  Community college occupational programs are also reviewed as part of the ICCB program review process. Each community college undergoes review on a five-year cycle.

- Improving instruction. The Vocational Instructor Practicum (VIP) program is a private-sector-based internship for vocational educators. It is operated through the Educational Service Centers (ESCs) and uses state funds for stipends to educators who participate. Since its three years in operation, VIP has served about 1,000 educators a year. Improvement results from instructors integrating their on-the-job experiences into classroom instruction.

  QAP funds support locally organized in-service education to meet identified needs of staff. Funds often support professional participation in state and national in-service education workshops, seminars, and conferences.

- Improving program content. QAP funds may be used for improving curriculum at the regional or community college district level. Program articulation between the secondary and postsecondary levels is an improvement thrust of the State Board's EFE policy which uses the QAP process extensively.

- Improving equipment/facilities. In the past, the State Board designated funds for equipment acquisition by allocating specific funds to various types of institutions. In addition to funds available under the Perkins Act, the State of Illinois appropriated some equipment funds. Beginning in 1987, the State Board incorporated funds for equipment into the overall program improvement effort. A plan is written for these three components.

Requests for equipment funds are made through a grant proposal which accompanies the plan. This process has been particularly valuable in assisting schools to acquire computers for use in programs. Instructional materials such as videotapes have been useful in exposing students to demonstrations, equipment, and technology not accessible in the classroom setting.

The ICCB provides special grants for equipment acquisition by the community colleges.

- Improving services. Title IIB funds available from the Perkins Act are used for state-level improvement initiatives for student services, including guidance and counseling. Funds have been used to distribute and provide in-service education for using the Guidance-By-Objectives program and the Guidance Counselor Handbook.

  In-service education for personnel working with special populations has been provided through state-level efforts, as well as through the QAP process. Title IIA funds for services to special populations also support improvement activities at the local level. ICCB offers special grant funds to provide needed services to disadvantaged populations.

MODERNIZING PROGRAMS

Criticism, particularly from the private sector, concerning outdated vocational education programs has caused added attention to be given to efforts to modernize programs. Highlights of the process used in Illinois are listed below. For the purpose of this report, modernization means major renovation or revitalization to revamp or update programs. (Improvement efforts are defined as the ongoing mechanisms.)

Additional information about modernization, particularly as it relates to private-sector involvement is found in ICoVE's Report #3, Advice to the Private Sector, and Report #7, Private-Sector Involvement in Vocational Education.

- Modernizing program content. A statewide effort to modernize curriculum was launched in 1986 and continues today. The effort focuses primarily on identifying tasks performed in various occupations. These task lists are then verified by members of the private sector who are employed in the occupation. The task list, once verified, is considered updated and becomes the basis for curriculum revision or development.

  The task list process was required by the State Board as a prerequisite to program approval under the new delivery system. Through the use of state technical committees, the State Board developed state task lists for some occupational areas considered as having significant statewide need.

  Program modernization was incorporated into ICCB's program evaluation process which completed its first five-year cycle in

1988. The process incorporates program review in conjunction with labor market information. Programs are marked for renovation or discontinuation if they are outdated or not preparing participants for employment in today's labor market.

The State Board participates in several consortia to tap national curriculum modernization efforts, using Title IIB program improvement funds to support the efforts. Examples include the V-TECS competency-based materials and the applied academic program materials, e.g., applied mathematics, applied communication, and principles of technology.

The QAP process is the primary State Board mechanism used by RDSs and community colleges to modernize their programs. Some funds from the State Board are available for innovative requests that have potential for statewide use.

More specific information about the modernization initiatives pertaining to program content is described in ICoVE's Report #9, Academic Foundations & Application of Technology, and Report #18, Technical Committees and Illinois Curriculum.

- Modernizing instruction. Keeping up-to-date with the processes and skills necessary for today's workforce is difficult for teachers/instructors unless they have an opportunity for hands-on experiences in private-sector jobs. The VIP program previously described is a system designed to afford teachers/instructors this opportunity. The university system lends support to the program by offering university credit to participants.

  QAP funds, once again, provide a vehicle for RDSs and community college districts to provide in-service education for staff development having a "modernization" thrust. Examples of QAP accomplishments include workshops for integrating computers into the classroom and increasing educators' knowledge of technology. Special projects funded by the State Board, using Title IIB program improvement funds, have made these workshops available.

  Attempts to initiate new regulations which would require teachers to update their work experience every five years was not approved by the State Board.

- Modernizing equipment/facilities. As an incentive for modernizing equipment and facilities available to students, the State Board added a weighted factor to the funding formula for programs which are delivered in a site which uses, for the majority of the instruction, private-sector facilities and equipment (i.e., the off-campus instruction concept).

  Funds designated to regional delivery systems and community college districts for program improvement may be used to support acquisition of modern equipment. To receive approval for use of the equipment funds, a grant proposal must accompany the plan.

The Illinois Community College Board has established an Advanced Technology Equipment Grant to assist community colleges in the equipment modernization process. About $1,350,000 are available for colleges to purchase state-of-the-art equipment.

DEVELOPING PROGRAMS

In keeping up-to-date with needs of the current and future workforce, a system for program development is essential. Program development includes not only development of the curriculum to be taught, but also the staff to deliver the program and the equipment/facilities necessary for learning. Activities to market the program or make it accessible to those who could benefit from the program are essential elements as well.

- Developing program content. Determining needed programs, may be either a State process or a local process in Illinois. At either level, labor market information is the primary factor used for determining the need. Requests from the private sector for programs unique to a given area of the state are generally communicated to the State Board through the RDS or community college plan. Once the need has been established, program development proceeds through the curriculum development process, beginning with a search for an existing task list or the development of one.

  Program development at the local level is funded and carried out under the RDS or community college plan, using QAP funds. Program development at the state level is accomplished by using the contract method with the State Board issuing a contract for the program development activity.

  In the past, most of these contracts have been with the universities. However, a trend toward community colleges and regional delivery systems entering into the development business is emerging. This is seemingly attributed to the increasing sophistication of these systems resulting from the EFE policy and accompanying administrative plan.

- Staff development. Pre-service programs offered through the state university and private college systems prepare vocational education teachers, administrators, and guidance personnel. The State Board has limited input into that system other than through its University Council on Vocational Education in Illinois (UCVEI).

  UCVEI was organized by the State Board in the 1970s as a vehicle for coordination of vocational education between the State Board and the higher education system which provides pre-service and much of the in-service education for the state. The UCVEI also functions as an inter-university coordinating council for vocational education.

The State Board identifies staff development and program development priorities, in addition to ongoing in-service education needs. Universities develop plans to address these needs. Plans are approved by the State Board with universities receiving in a range of $55,000-$80,000 for smaller universities to $90,000-$120,000 for larger universities to carry out the activities of the plan.

- Special program development. The State Board system for developing special programs which provide unique services to special population groups uses two systems for delivering the programs. The first is the RDS or community college plan which outlines how the programs will be provided using special funding allocated through the formula process. The second is through the use of special project funds available to eligible recipients to develop and deliver programs at the local level. Examples of programs include single-parent programs, dropout prevention programs, teenage-parent programs, programs for limited-English-speaking participants, and many others.

  Successful program models have been developed for the delivery of many of these special programs. The models are useful in keeping "start up" or development costs down for future new programs.

  Needs are identified by the RDS's and community college district's planning process. State-level priorities are driven, in part, by the availability of federal funds and, in part, by requests for programs from the delivery systems.

SUMMARY

The State Board relies heavily on the program improvement plan process, incorporating QAP to provide the primary mechanism by which regional delivery systems and community college districts can expand, improve, modernize, and develop quality vocational education programs. The QAP is supplemented by the State Board special project contracts to help, particularly in the development phase and with statewide leadership through dissemination activities. Other State Board-sponsored efforts such as the VIP program are also very effective.

ICoVE found some confusion between the state's role and the "local" role. Through the planning process, regional and district priorities were often identified and later found to be in apparent conflict with either State Board priorities or State Board processes. In some instances, sequences were not synchronized.

Responsibilities for support and assistance, including financial support for state priorities, are not always clear among local personnel. Not all services and resources available to RDSs and community college districts are fully understood. The role of universities in providing in-service education and assistance is not universally known. Some confusion as to how the pieces fit together and what the end product should be exists. A clearly defined plan for expanding, improving, modernizing, and developing programs is needed. It should identify responsibilities, resources, time frames, and outcome measures.

EXISTING & FUTURE WORKFORCE NEEDS FOR MARKETABLE SKILLS, IMPROVED PRODUCTIVITY AND ECONOMIC DEVELOPMENT

At one time, vocational education programs focused attention on preparing students for employment in jobs that experienced minimum change during a five to ten-year period. Students were fairly knowledgeable of jobs in the surrounding geographic area and where they were most likely to find employment. Program needs were often determined by student interest. The availability of entry-level, low-skill jobs did not require the level of highly skilled workers needed today.

The shrinking pool of available workers, changes in the skills needed to perform a certain job, plus job growth in highly skilled occupations are causing vocational education to become more accountable to the needs of the labor market, both present and future. Bolstering of the state's economy and increasing worker productivity by preparing and maintaining a quality workforce are responsibilities being assigned the educational system. The Perkins Act identifies these as part of its purpose for supporting state programs.

This section highlights the mechanics set in place by the State Board to fulfill this purpose.

EXISTING WORKFORCE NEEDS FOR MARKETABLE SKILLS

The State Board supports programs which serve the existing workforce in two primary ways. Requests from the private sector to offer programs for their workers are made to local educational institutions. Through the regional or community college plans, the State Board approves and funds these plans. Individual workers wishing to participate in vocational education programs enroll in ongoing programs.

Special projects are available to provide programs to meet urgent needs of the private sector. The community college board supplements the State Board's process with a system for assisting small businesses.

- Immediate needs. The High Impact Training Services (HITS) program is a quick-start program designated to respond to the needs of business and industry to train workers needed in new plant locations or expanding work sites. Programs are developed in cooperation with the private sector and the educational institution. Programs are funded with state appropriations (approximately $2,000,000 annually) and supplemented with federal funds (about $300,000).

- Maintaining current workers. Educational institutions can develop programs in cooperation with the private sector to provide retraining and the upgrading of skills to the current workforce. The initiative may come from the private sector or the regional or district system. Individual workers may participate in existing program offerings. The State Board does not provide extensive emphasis to this initiative.

- Business centers. The Illinois Community College Board has developed Economic Development Grants to support Business Centers for community colleges to operate an ongoing service to small businesses or new businesses. The Centers provide a variety of services on an individual basis. Services are responsive to the unique needs of business on an individual basis. ICoVE Report #11, Preparing and Maintaining Workers, provides a more thorough description.

- Dislocated worker programs. Vocational education can respond to plant closings and workers who are dislocated by advancing technology. Through the regional planning process, such programs are designated in the regional or district plans and funded through the regular funding formula. Through cooperative efforts with job training programs under the JTPA, vocational education delivers JTPA programs specifically designed to retrain or upgrade workers who have been or are likely to be dislocated because of plant closings or outdated skills.

FUTURE WORKFORCE NEEDS FOR MARKETABLE SKILLS

The State Board incorporates two basic processes for providing for the need of the future workforce to have marketable skills. The Board uses labor market information to determine the kinds of programs to offer and private-sector involvement to keep the content of the programs current.

- Labor market information. The State Board supports and uses statewide and regional labor market information to determine occupational program needs and priorities. State Board requirements, as part of the RDS and community college district planning process, incorporate varifying labor-market needs. Regional or district labor markets may have pockets of need or recent developments creating different needs. Through involvement of the private sector in identifying these differences, RDSs and community colleges may include programs in their plans which differ from the original information because of localized activity.

  The use of private-sector representatives to verify occupational tasks contributes to quality programs which offer marketable skills to students. These processes become part of the requirement for State Board approval of plans.

- Private-sector involvement. Involvement of the private sector through task list verification and program advisory councils are the most common mechanisms used by regional and community college delivery systems to obtain input for making programs responsive to labor-market needs. In addition to occupational skills, the private sector offers suggestions for academic content and employment-related competencies. Additional information pertaining to private-sector involvement is included in ICoVE's Reports #3 and #7.

  The State Board requires regional advisory councils, but does not require advisory councils for other components or at other levels of programming.

IMPROVED PRODUCTIVITY

The State Board has used program improvement funds from the Perkins Act to contract for special projects to develop materials which can be infused into vocational education programs to teach concepts related to or impacting on worker productivity.

- Employability skills. The development of program materials for teaching skills necessary for finding, securing, and keeping employment has been a state initiative developed through special project contracts for content development. A State Technical Committee verified the initial task list. Infusion of employability skills is part of the program approval process being used for implementing the EFE policy.

- Generalized technology. A state project to identify technology common across most occupational areas is being developed. Infusion of the concepts into vocational education curriculum will enhance worker knowledge of technology's contribution to productivity.

- Work ethic. Program materials to enhance the work ethic were developed by a state project to meet requests from the private sector to teach students about work.

- Self-empowerment. Self-empowerment curricular materials help vocational education students to develop learning and interpersonal skills deemed important by employers for increasing productivity.

ECONOMIC DEVELOPMENT PROMOTION

Providing a well-prepared pool of workers is the State Board's primary contribution to economic development. Through special program funding, the

State Board also makes contributions resulting from programs which help business and industry create jobs through expansion and retain jobs through retraining.

- Entrepreneurship in Illinois was given special attention by the Illinois General Assembly which established an institute at Northern Illinois University. Program improvement funds from the Perkins Act have been used to develop entrepreneurship curriculum, as well as to design instructional processes to integrate entrepreneurial concepts into existing vocational education curricula.

- Community college initiatives. The Illinois Community College Board makes Economic Development Grants available to community colleges for operating the Business Centers. Additional information is reported in ICoVE's Report #11, Preparing and Maintaining Workers.

SUMMARY

One of the purposes of the State Board's Education for Employment Policy states, "Vocational education programs and services will include a systematic program of curriculum renewal, staff development, and equipment modernization, each developed in conjunction with employers in the geographic area." During the past few years, particularly the most recent two years, the State Board has worked toward that goal. Curriculum renewal, staff development, and equipment modernization efforts have attempted to incorporate private-sector input for the purpose of aligning them with work place needs.

A great deal has been accomplished, but more needs to be done in order to assure that the system is fully understood by those who need to use it. The State Board needs to provide leadership and focus to the effort. A sense of "going in too many directions" exists at the district and regional levels.

Another objective of the EFE Policy is to enhance the responsiveness of vocational education to the needs of the labor force. A couple of processes are in place through HITS and the community college Business Centers. Other actions indicating that "responsiveness" is available involve extended periods of time for accomplishing the needed response. For example, technology in the workplace has taken many twists, turns, and new directions since its first major impact was felt by industry. There appear to be vocational education classrooms still waiting for the introduction of concepts related to technology.

The magnitude of the undertaking has been vast. Illinois continues in a transitional state toward full implementation of the secondary system. As the system nears completion, a clear schematic of the process and anticipated results would assist regional delivery systems and community college districts to understand when and how the process can be tapped to meet their program improvement needs.

USE OF FUNDS

FEDERAL FUNDS

The Carl D. Perkins Vocational Education Act designates that 43% of the Basic Grant allotment to the State is to be used for program improvement activities. Table 1 illustrates major program improvement efforts in Illinois which were supported by these funds. ICoVE's Report #4, Distribution of Vocational Education Funds, provides added detail.

TABLE 1

FEDERAL FUNDS FOR PROGRAM IMPROVEMENT, TITLE IIB, FY'87

(Planned and Expended)

Area of Improvement	Planned Distribution	Percent of Title IIB	Distribution as Expended	Percent of Title IIB
Vocational Student Organizations	$ 150,000	1.2%	$ 102,657	.8%
Cooperative Education for Special Needs (WECEP, ESLP)	1,673,334	13.6%	1,678,384	13.1%
Local Program Improvement (excluding QAP)	1,982,831	16.1%	5,095,796	39.7%
Instructional Equipment	2,500,000	20.3%	2,230,235	17.4%
Curriculum Development	1,647,500	13.3%	544,649	4.2%
Staff Development	2,510,000	20.3%	1,199,000	9.3%
Career Guidance	877,322	7.1%	1,005,181	7.8%
Technical Assistance (Statewide In-service)	1,000,000	8.1%	992,150	7.7%
TOTAL	**$12,340,987**	**100%**	**$12,848,052**	**100%**

STATE FUNDS

In addition to federal funds, the Illinois General Assembly provides funds to support program improvement initiatives to meet the needs of the current and future workforce. These funds are illustrated in Table 2 and described in greater detail in Report #4, Distribution of Vocation Education Funds.

TABLE 2

STATE FUNDS FOR PROGRAM IMPROVEMENT, FY'87

(Planned and Expended)

Purpose	Planned Distribution	Distribution As Expended
High Impact Training Services (HITS)	$2,000,000	$1,353,220*
Vocational Instructor Practicum (VIP)	$1,500,000	$1,500,000
Education for Technology (ETE)	(Available carryover)	$844,358
Economic Development Grants for Community Colleges**	--	$2,934,000
Community College Advanced Teaching Equipment Grants***	$1,346,300	$1,329,131
TOTAL	–	$7,960,709

*State appropriations were decreased after budget plans were established.

**In addition to state funds designated for the Grant, ICCB supplements the allocation with an additional $23,700,000 in funds from other sources. Some of the supplemental funds are also state revenues, including HITS, Prairie State 2000 and others.

***Grants were used by other programs in addition to occupational programs, but occupational programs received 81% of the funds available. Additional equipment funds expended by community colleges added $5,222,584 for instructional equipment.

ICoVE SURVEY OF PERCEPTIONS REGARDING QUALITY

The Illinois Council on Vocational Education conducted a survey of vocational education personnel in the community college districts and the regional delivery systems, as well as JTPA personnel in the service delivery areas (SDAs). The purpose of the survey was to determine the perceptions of local personnel regarding how adequately and effectively Illinois has met the purposes of the Carl D. Perkins Vocational Education Act and the purposes of the Job Training Partnership Act.

Three of the questionnaire items addressed State success in expanding, improving, modernizing, and developing vocational education programs to meet the existing and future needs of the workforce for marketable skills, to improve productivity and promote economic growth (i.e., the purpose of this report).

The response rate to the questionnaire included:

77% response from JTPA Service Delivery Areas (SDAs)
72% response from community college personnel (CC)
59% response from regional delivery system (RDS) personnel

The questionnaire asked respondents to rate the adequacy and effectiveness of Illinois in meeting the purpose as stated in the Act. A continuum was used for the rating with a five indicating "very adequately and effectively" and a one indicating "not very adequately and effectively." The rating scores were averaged for each group of respondents. Table 3 provides the average rating given by each group.

Overall, the three groups rated Illinois' effort to accomplish this purpose of the Perkins Act second highest among the nine purposes of the Act. The groups rated Illinois' efforts to serve at-risk populations higher. (ICoVE Report #23 contains the ratings for all nine purposes.)

When the purpose statement was broken into two parts and respondents were asked to rate each part, the ratings were lower for each of the parts than for the complete purpose statement. (See Table 3)

In all cases, the vocational education regional delivery system personnel viewed Illinois' accomplishments higher than did the other groups. The ratings given by community college personnel were second. JTPA personnel in the SDAs gave the lowest ratings.

TABLE 3

ADEQUACY AND EFFECTIVENESS OF QUALITY PROGRAMS TO MEET WORKFORCE AND ECONOMIC NEEDS

(Continuum: 5=Very; 1=Not very)

QUESTION: How adequately and effectively has Illinois met the statement of purpose—

"Assist the states to expand, improve, modernize, and develop quality vocational education programs in order to meet the needs of the Nation's existing and future workforce for marketable skills and to improve productivity and promote economic growth."

RESULTS

Group	Average Rate
Service Delivery Areas (SDA), JTPA	3.11
Regional Delivery System (RDS)	3.61
Community Colleges	3.29

QUESTION: How adequately and effectively. . .In terms of—"Improvement and expansion of programs to meet the state's workforce needs."

RESULTS

Group	Average Rate
Service Delivery Areas (SDA), JTPA	2.80
Regional Delivery System (RDS)	3.33
Community Colleges	3.19

QUESTION: How adequately and effectively. . .In terms of—"Promotion of economic growth."

RESULTS

Group	Average Rate
Service Delivery Areas (SDA), JTPA	2.93
Regional Delivery System (RDS)	3.33
Community Colleges	3.11

PART TWO

EFFECTIVENESS OF ILLINOIS INITIATIVES

EXPAND, IMPROVE, MODERNIZE, AND DEVELOP QUALITY PROGRAMS

QUALITY ASSISTANCE PLAN (QAP)

The Quality Assistance Plan (QAP) is designed to encourage activities, initiated at the regional or community college district level, which will provide for quality vocational education programs. QAP funds may be used to expand, improve, modernize, or develop programs. The process was established in 1982 for curriculum and staff development activities in local districts to improve program quality.

Passage of the Perkins Act in 1984 brought new attention to the quality of vocational education programs. The proportion of federal funds targeting program improvement increased. In 1987, the State Board added the modernization of equipment to the overall program improvment planning process, thus packaging the three major elements of program quality. Funds designated for equipment must be accompanied by a grant proposal. The responsibility for determining distribution of financial resources among the three program elements became a local one.

Both the Perkins Act and the State Board's new EFE Policy and regional delivery system give emphasis to vocational education programs that meet the needs of the workplace and prepare students with marketable skills. Articulation, a strategy for efficiency, is also a priority.

As the local secondary districts began to work together in newly formed regions, efforts to articulate programs with community college districts also increased. The availability of QAP funds for articulation and labor market information review has been a driving force behind revising both program content and program offerings to improve articulation and the use of LMI at the regional or district level.

During FY 88, QAP funds were used to assist the following numbers of vocational educators through staff development or curriculum related efforts:

- 7,315 vocational/occupational teachers/instructors
- 880 guidance counselors
- 1,245 administrators

Regional delivery systems already in place during 1988 were the largest users of QAP funds. Community college districts had more QAPs than other groups. (See Table 4.) The size of the QAP funding allocation is heavily influenced by the number of teachers being served. Nearly $3 million is available for the quality improvement effort each year.

Additional information about the formula for distribution of QAP funds is in ICoVE's Report #4, Distribution of Vocational Education Spending.

At ICoVE public hearings, educators and private-sector representatives praised the QAP process because it made funds available for staff activities required by the shift toward the regional delivery systems. Funds provided opportunities for teachers and instructors to work with other teachers and instructors to review programs, share ideas, and articulate programs.

TABLE 4

DISTRIBUTION OF QAP FUNDS AMONG ELIGIBLE RECIPIENTS, FY 88

Eligible Recipient	Number of Recipients	Total Funds	Average Funds Per Institution	Range of Allocations
Education Service Regions (ESRs)	16	$427,826	$26,739	$8,200-76,700
High Schools	7	$422,200	$60,314	$9,900-113,500
Regional Delivery Systems (RDS)	33	$1,019,392	$30,890	$9,600-100,000
Community College Districts	36	$928,119	$25,781	$6,900-165,600
Technical Institutes	3	$49,268	$16,423	$6,700-34,000
State Agencies	3	$101,000	$33,666	$1,000-53,000
TOTAL/AVERAGE/RANGE	98	$2,947,805	$30,080	$1,000-165,600

VOCATIONAL EDUCATION PERSONNEL

In Illinois, 14,161 vocational educators plan, develop, teach, administer, and provide services to education for employment students on a full-time basis. (See Table 5.) An additional 6,393 are part-time staff. The total professional staff is 20,554. Of these, 68% are full-time personnel and 32% are part-time. (Secondary staff who are part-time are not designated as such.)

The male-female ratio for secondary vocational education personnel is 53%-47%, respectively. The postsecondary full-time and postsecondary and adult part-time ratio level is about 60%-40% ratio of male-female. The adult full-time ratio reverses to 60%-40% with females being dominate. (See Table 5.)

QAP (program improvement) funds benefit about 9,440 or about 2/3 of the full-time vocational educators each year. In addition, VIP (internship) programs assist about 1,000 annually to update their work experience. Additional in-service education is provided by dissemination and in-service education activities which are part of special project contracts.

Table 5

INSTRUCTIONAL STAFF & ADMINISTRATORS OF EFE
(Fiscal Year 1987)

Level	Full-Time			Part-Time		
	Male	Female	Total/ % by level	Male	Female	Total/ % by level
Secondary*	5,386 53%	4,856 47%	10,242 72%	-	-	-
Postsecondary	1,830 59%	1,260 41%	3,090 22%	3,467 62%	2,123 38%	5,590 87%
Adult	348 42%	481 58%	829 6%	429 61%	383 39%	803 13%
TOTAL	7,564 53%	6,597 47%	14,161 100%	3,896 61%	2,506 39%	6,393 100%

*All secondary personnel are designated as full-time, some may teach courses other than vocational education during part of the day.

In postsecondary and adult programs, part-time educators account for over half of all instructional staff. (See Table 6.) Secondary programs do not identify which are part-time staff.

Table 6

FULL-TIME AND PART-TIME STAFF, BY LEVEL OF INSTRUCTION

	Secondary	Postsecondary	Adult	Total
FULL-TIME				
All Staff	10,242 100%	3,090 35%	829 50%	14,161 68%
Teacher/Instructors	(7,461) (73%	(2,526) (82%)	(347) (42%)	(10,334) (73%)
PART-TIME				
All Staff	-	5,590 65%	803 50%	6,393 32%
Teachers/Instructors	-	(5,098) (91%)	(597) (74%)	(5,695) (89%)
TOTAL				
All Staff	10,242 50%	8,680 42%	1,632 8%	20,554 100%
Teachers/Instructors	(7,461) (73%)	(7,624) (89%)	(944) (58%)	(16,029) (78%)

In addition to teachers/instructors of occupational programs, vocational education staff include administrative/supervisory personnel, personnel who provide support services, and special education teachers who work with special needs students.

Overall, both full-time and part-time teachers/instructors comprise 78% of the staff; administrative/supervisory personnel account for 6%; support services personnel represent 10%; and special education faculty make up 6%. (See Table 7, page 27.)

Postsecondary has a higher proportion of teachers/instructors among its staff (88%) than either of the other levels. Postsecondary has the lowest rate of support services personnel and administrative/supervisory personnel. Adult programs have less than 60% of the staff assigned as teachers or instructors, and nearly one of every five on the staff is special education.

Half of all Education for Employment personnel are involved with secondary programs. Forty-two percent are involved with postsecondary and the remaining 8% are adult program personnel.

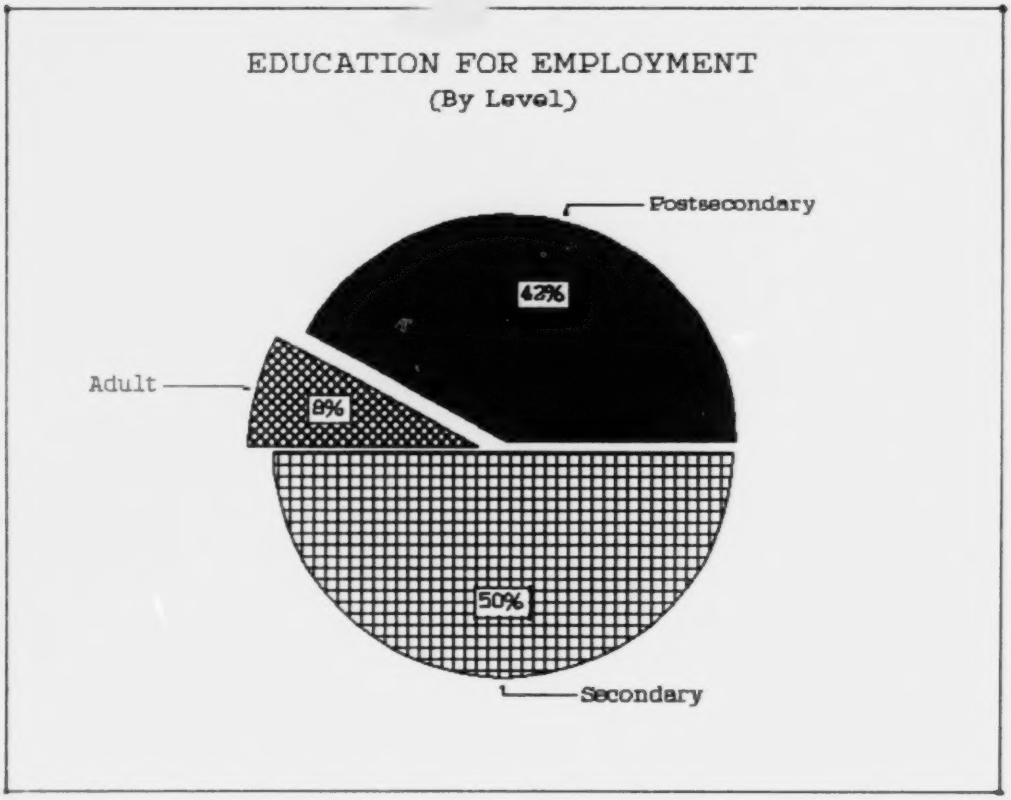

Figure 1: Distribution of staff by instructional level

TABLE 7

RESPONSIBILITY OF VOCATIONAL EDUCATION STAFF
(Fiscal Year 1987)

Responsibility	Full-Time		Part-Time		Total	
	Number	Percent	Number	Percent	Number	Percent
SECONDARY:						
Teacher	7,461	73%	-	-	7,461	73%
Administrator/ Supervisor	814	8%	-	-	814	8%
Support Services	1,278	12%	-	-	1,278	12%
Special Education	689	7%	-	-	689	7%
Subtotal	10,242	100%	-	-	10,242	100%
POSTSECONDARY						
Teacher/Instructor	2,526	82%	5,098	91%	7,624	88%
Administrator/ Supervisor	274	9%	52	1%	326	4%
Support Services	287	9%	220	4%	507	6%
Special Education	3	-	220	4%	223	3%
Subtotal	3,090	100%	5,590	100%	8,680	100%
ADULT						
Teacher/Instructor	347	42%	597	74%	944	58%
Administrator/ Supervisor	117	14%	64	8%	181	11%
Support Services	150	18%	46	6%	196	12%
Special Education	215	26%	96	12%	311	19%
Subtotal	829	100%	803	100%	1,632	100%
TOTAL						
Teacher/Instructor	10,334	73%	5,695	89%	16,029	78%
Administrator/ Supervisor	1,205	9%	116	2%	1,321	6%
Support Services	1,715	12%	266	4%	1,981	10%
Special Education	907	6%	316	5%	1,223	6%
TOTAL	14,161	100%	6,393	100%	20,554	100%

VOCATIONAL INSTRUCTOR PRACTICUM
VIP (INTERNSHIP)

The Illinois Council on Vocational Education is a strong proponent of quality vocational education. A key segment of the educational process, directly linked to program quality, is instruction. Keeping vocational education teachers/instructors, as well as administrators and guidance personnel, up-to-date with rapidly changing technology and its impact on jobs, job skills, procedures used in the work place, and shifts in available employment opportunities is difficult. Once personnel are updated, curriculum and instructional materials must be revised, often requiring additional in-service education to familiarize teachers/instructors with the changes. Acquisition of new, modern equipment frequently necessitates additional in-service education of staff.

A variety of in-service education strategies are available, have been used, and are successful for some endeavors. ICoVE's primary concern for in-service education in the education for employment community is the teachers' current knowledge and skills directly related to the occupation and job skills being taught in the classroom. A well-designed, private-sector internship provides an effective strategy for helping teachers, administrators, and guidance counselors update knowledge and skills and align these with those being used in today's workplace.

Development

Early in 1984, at the request of the Illinois Vocational Association, ICoVE's predecessor known as SACVE entered a joint venture for the purpose of developing an internship model for Illinois. Because the State Council had recommended the use of internships for updating teachers in its 1985 Evaluation Report, IVA approached the Council and asked if it would assist in identifying others to be involved. Additional partners were identified and invited. These included the Illinois State Board of Education, the Illinois Community College Board, and the University Council on Vocational Education in Illinois.

Representatives from each participating group established an "Internship Committee" and began regular meetings at 4-6-week intervals. The committee assigned responsibilities to each of its participating members. Work began immediately.

As participants reported information to the committee, discussion followed and a consensus began to form regarding characteristics of an internship model. The "mechanics," including identification of teachers, contacts with the private sector, requirements of participants, etc., began to take shape. Each of the participating members continued to discuss progress with their own agency or organization and brought feedback to the committee.

In the spring of 1985, Governor Thompson announced his interest in supporting an internship program for vocational education as part of his "Build Illinois" program. The Governor had been apprised of ICoVE's interest and investigation of the internship potential for updating teachers/instructors with the involvement of the private sector in this process. In the summer of 1985, the Illinois General Assembly passed legislation funding the internship program as part of its educational reform package (SB730). The Illinois State Board of Education had responsibility for preparing regulations for implementation in 1986.

Senate Bill 730 authorized $1.5 million to pay stipends up to a $2,000 maximum to vocational education teachers/instructors to participate in a private-sector practicum or internship. The purpose was to update the skills and knowledge of vocational educators by providing on-the-job experience in a private-sector setting. State funds provide teacher/instructor compensation unless the teacher-intern contributes to the production of the workplace. In these instances, the employer provides a portion of the compensation.

The Internship Program

The Vocational Instructor Practicum (VIP) program is designed to provide summer internships for vocational educators. The internship was designed to be in the private sector, however provisions were amended to use public-sector jobs, such as health care facilities and law enforcement agencies when necessary to offer the most appropriate internship.

Participation may be up to eight weeks during the summer months. Stipends provided by VIP funds appropriated in the Illinois General Assembly are used to pay salaries. Participants may earn up to $250 a week. The cost of the salary is shared, with the firm paying up to 30% of the salary if the intern is productive on the job.

VIP participants are responsible for arranging their own employment. Some have worked with more than one employer to gain experience in more than one location, depending on the occupational area and availability of intern sites.

The State Board has promoted the internship with brochures designed to explain the program to the private sector. Members of the private sector have been most willing to work with the educational community to provide feedback and input regarding program strengths and areas needing to be improved. The private sector has also helped to market the program to others. Approximately 1,000 participate annually.

Improvements

The Internship, known as the Vocational Instructor Practicum (VIP) has been in place since 1986. It is operated through the 18 Educational Service Centers (ESCs). Funds are allocated to the ESC based on the number of VIP-eligible participants. Applications for participation from educators are processed by the ESC. Funds not needed by one ESC may be transferred to another ESC having more qualified applicants than available funds.

Several minor revisions in the VIP program have occurred during the past three years. The Illinois Council on Vocational Education has monitored the program extensively. ICoVE recommendations for adjustments and improvements to VIP have been submitted to both the State Board and to the Illinois General Assembly. Several have been acted upon.

Expansion of program. Success of the first two years of VIP brought attention to the need to expand the program to vocational educators in addition to teachers/instructors. Language in the original legislation was changed by the Illinois General Assembly to include guidance counselors and administrators. These groups participated for the first time in the summer of 1988.

Approximately 40 guidance counselors participated, but only about five administrators participated.

Improving VIP. Legislative amendments were also passed to improve access to the VIP program by personnel in programs, such as corrections, which operate for twelve months. The amendments provide funds to be used to hire substitute teachers and the internship can be taken anytime during the year.

Regulations for evaluating the internship have also been added since the original year of implementation. Universities have worked to coordinate university credit and requirements for obtaining the credit. Extensions to include public-sector internships for occupations in health care and law enforcement improved internship sites for those areas.

ICoVE's Assessment

Careful monitoring and continuing involvement in the internship program has been provided by ICoVE since its original conception. Members of the Illinois Council attend evaluation sessions sponsored by the ESCs to hear results from the private sector and intern participants. Private-sector members of the council have served as internship sponsors in their respective companies. ICoVE's educational representatives, particularly administrators, have faculty who participate as interns.

ICoVE member James Denny, Director of Organization/Human Resource Development for International Minerals and Chemical Corporation, has served as chair of ICoVE's internship committee since 1984. He is ICoVE's designated representative to the State Board, General Assembly, and the Governor on matters related to the VIP. Mr. Denny has conducted interviews with 16 of the 18 ESCs to determine strengths and weaknesses of the program. The ICoVE Internship Committee has made numerous recommendations to further enhance the success of the program. The following communicates the results of these efforts.

Findings

In September 1986, following the first year of VIP, members of the ICoVE Internship Committee and other Council members attended nearly all of the follow-up sessions hosted by the 18 ESCs for participants, employers, and school administrators. In a report to ICoVE, the committee chair submitted the following comments from VIP participants and their employer partners, as representative of the internship:

> "A worthwhile exchange for both parties."
> "Initially, we were apprehensive- thought an extensive training effort would be required. Not so! It was very productive." (Employer)
> "An interesting situation--the educator working for a former student!"
> "A real positive experience- practical application of school theory."
> "Make teacher accountability [back to the classroom] mandatory."

A profile of the first-year VIP participation included:

- Teachers/Instructors:
  816 secondary (82%)
  176 postsecondary (18%)

- Secondary participation:
  7–8 weeks---41%
  5–6 weeks---27%
  1–4 weeks---32%

- Postsecondary participation:
  7–8 weeks---22%
  5–6 weeks---23%
  1–4 weeks---55%

A larger portion of the postsecondary instructors had short (1–4 weeks) internships than the secondary teachers. The committee found that many of the short durations were "shadowing" internships. Some of these participants rotated the internships among several companies.

Interview Results

In the spring of 1987, ICoVE's Mr. Denny conducted a telephone survey of the ESCs for the purpose of inquiring about their evaluations of the VIP program. Sixteen of the 18 ESCs cooperated. Most interviews were conducted with the VIP Coordinators, others with the ESC Directors, and at two centers, both participated.

In his report to ICoVE, Mr. Denny said, *"one single issue came to the forefront. More often than not, it was raised by the director; if not, I surfaced the issue. It was the weakness of classroom accountability. . .the incorporation of the practicum experience into the curriculum via change or addition."* He reported, *"Without exception, all felt it was one of the best, if not the best, staff development actions ever taken by ISBE."*

Suggestions given by the ESCs included both ways to improve the program and mechanisms ESCs have used to enhance programs locally. Four categories of input are cited from Mr. Denny's report of the interviews. When more than one person indicated agreement with a suggestion or in response to a question, the number is given in brackets following the statement. Other suggestions represent a general consensus of those interviewed.

Suggestions given for classroom accountability:

"Postpone the August VIP participant evaluation until October or November. . .also a portion of the grant money. Then, as part of the evaluation, require each participant to submit a detailed implementation plan that his/her local administrator has 'signed-off' on. Complete grant payments at this time."

If holding back some of the grant money cannot be done, consider additional grant money as an incentive/bonus [12-yes, 1-no].

> "Could create a problem with the Chicago Teachers' Union."

Is teacher performance appraisal a reality [9-yes, 1-no]?

> "If it is, evaluate the practicum experience: was it, or was it not, implemented into the class curriculum. . .and how well."
>
> "No different than the private/public sectors' establishment of individual objectives that are measurable. This could be handled through the Principal's Academy."
>
> "Could not be done in rural districts where administration is overloaded . . . 'one more thing.' Urban districts have the staff to do this."

Where college credit is offered for the practicum experience, no final grade should be awarded until the professor supervising VIP approves the detailed implementation plan, no later than October/November. [10-yes, 2-questionable]

> "The university system should evaluate (for approval) the detailed implementation plan for all VIP participants (credit and non-credit). A portion of the grant monies could be withheld until plan is approved."
>
> "Not that many in Chicago take or apply for college credit."

"We require teachers to write a detailed experience report, incorporating a curriculum change or addition. Report is presented to the local Board of Education."

"Our participants are required to attend a Pre-VIP orientation Workshop: Incorporating VIP Experience into Vocational Education Program and Course Content."

"Using the reporting/reimbursement form, require a concrete statement of incorporation into the curriculum that will be signed by VIP participant, employer and planning grant director before ESC pays final grant money."

"ESC has a service roll; should not be involved in accountability and monitoring, versus yes, involve ESCs or Planning Grant Directors in the accountability process."

Suggestions for administering VIP:

"No problem with VIP mechanics, Chicago Teacher's Union thinks this is great!" [5]

"This year DAVTE was more timely in disseminating information and forms. . .a better 'flow'. "[2]

"Paperwork out of DAVTE was late again this year." [2]

"Keep dollars separate for secondary and community college participants. A large number CC applicants creates an artificial distribution."

"Better guidelines on 'what is expected to be in the Plan'."

"Get VIP out of ESC. . .more appropriate for program to be administered by Education for Employment or area vocational centers."

"On-site visitations are vital -need teacher/business support and coordination to do this."

"For more effective ongoing results, VIP should operate year around and on weekends."

"The 1099 income tax problem remains; teachers don't feel the grant monies should be treated as income."

"Eliminate deadline on application; leave open so Chicago can get processing done earlier." [volume problem]

Suggestions for VIP rules and regulations:

"Grant money $250/week or $2,000 maximum is good." [exception: Charleston] [11]

"Grant money $250/week or $2,000 maximum is too low for Chicago (Cook, DuPage and Lake counties, as well). There is no incentive when teachers can get summer jobs at a higher wage. Yet, do I want people in the program who are motivated by dollars--no!" [4]

"As long as there is no 'conflict of interest,' make public-sector jobs eligible for VIP participants (e.g., law enforcement, VA hospital, etc.)." [3]

"Open VIP participation to other teaching disciplines--math, English, social studies, etc.--if we really are to have 'Education for Employment" (form team teaching units)." [3]

"Open VIP to junior high vocational instructors, counselors, and administrators."

"Minimum day should be six hours, not five."

Suggestions for enhancing private-sector involvement:

For effective site and task list verification, there needs to be more involvement of business/private sector earlier in the program [5].

"Finding jobs is not easy (teachers don't want to solicit); therefore, build a job bank in cooperation with business/private sector. Planning Directors could assist in this. Also, Governor's Office should seek to get Illinois Manufacturer's Association, Chamber of Commerce, etc., involved as units." [2]

"Participating employers should adhere to a non-hiring clause; we have lost some teachers as a result of the 1986 VIP."

"For smaller business, need to communicate VIP beyond the brochure."

"Employers need a written explanation of: 70/30 pay ratio, insurance coverage, and workmen's compensation (eliminate 70/30--it's confusing to all)."

ICoVE's involvement in the ESCs follow-up of the VIP program has provided valuable information. Following are sample statements about VIP which members of the Council collected while attending these functions. The first set gives examples of statements made by teachers concerning the value of the internship to them. The second list focuses on how the internship has affected programs taught by VIP participants (i.e., resulting program changes). The third listing includes statements made by members of the private sector who sponsored internships.

Teacher/Instructor Comments:

"I have never had experience setting up the turret and engine lathe. Therefore, I was never aware of the amount of time required to actually prepare the machine. I am also aware of the processes a small manufacturing company goes through to solicit work." Ricky B. Bailey, Industrial Education, Elgin Community College.

"It was excellent. Staff members were super and were very willing to let me learn by doing. They took time to explain all aspects of the duties, answer my questions, and often showed me some 'tricks of the trade.'" Christine A. Halweg, Home Economics, Peotone High School.

"I believe this program is invaluable in learning what it is really like in industry and what students (the future employees) must know before seeking employment." James F. Davit, Industrial Education, Glenbard West High School.

"The experience vastly improved my knowledge about the therapy field. Therefore, my students will be informed about the different areas of therapy. It was very enjoyable because of the people who work at the offices and clinics." Robert J. Basarich, Cooperative Education Department, Lockport Township High School.

"I gained a wealth of experience and knowledge. There is so much more involved in garment design than the 'outside' person realizes." Linda K. Dodge, Home Economics, Lake Park High School.

"My practicum experience was very good. It opened my eyes to the qualities needed for employment in the cabinet-making profession. I was able to witness the problems encountered in a mass production system such as breakdowns and tolerances required for consistent fits." Russell C. Lehner, Industrial Education, Joliet West High School.

"This is a terrific program and I hope it continues. I learned a great deal about the business! This was an excellent experience, and my students will benefit from the knowledge gained." Marilyn J. Hrymak, Streamwood High School.

"I was provided a variety of 'hands-on' technical work utilizing modern diagnostic equipment of the auto industry. My VIP experience in the automotive diagnostic and repair business allowed me a unique opportunity to personally interchange with experienced auto mechanics." Dennis W. Howland, Industrial Education, Bolingbrook High School.

"I have a much better picture of what takes place in business. This was an excellent bridge between theory and practical applications." James L. Valleskey, Counselor, Glenbard West High School.

"Since, I have no previous manufacturing experience, this was extremely beneficial to me as my first, extended close-up experience around heavy industry. I learned about most of these things in college, but to actually see them and handle them makes a big difference." Ronnie C. Moore, Industrial Education, Minooka Community High School.

Program Changes Resulting from VIP:

"I have developed a time management unit showing students how they can better use 'down time' in their work situations. I have developed several case situations in which the student develops a bid for an institution or business. I have included forms and materials, gathered while on the VIP program, to show them how important paperwork is to the intermediate market." Michael J. Baker, Glenbard North High School, at Prairie State and Associates, Chicago Heights.

"The following applications have been made: 1) have used the information in an introductory class; 2) updated my class in Crisis Intervention to include some little known facts learned from policemen and judges; 3) have used the information in community lectures; 4) the video tape is in final editing. We will use it in several classes and it has been requested by community groups; and 5) this was a very worthwhile experience for me. I learned aspects of DUI that could not be obtained from books or other sources." Michael P. Barbezat, Elgin Community College, at Renz Addiction Counseling Center, Elgin.

"One of the most worthwhile concepts that I learned on my job site was how to incorporate the use of computers into the preparation of sales journals, cash receipts journals, general ledger accounts, and financial statements. The students found these experiences very educational, interesting, and at times very entertaining. John B. Bell, West Aurora High School, at Stopps, Mooney, and Kennedy, Aurora.

"VIP enabled me to become current with work practices, entry-level expectations, and opportunities in the banking field. It has allowed me to realize current trends in business and to recommend course content outline revisions and equipment updating comparable to what is in the business community." Gene Erickson, Streamwood High School, at First National Bank of Elgin, Elgin.

"The practicum rendered me with a valuable hands-on experience in repairing microprocessor, digital-controlled radio equipment. It has influenced my teaching of digital and microprocessor electronics in two ways: 1) hands-on training for students who are involved in circuit construction and design, with current state-of-the-art students being trained on how to handle the customer. Goals are set up to train students on customer relations as well as electronics." Michael Rybinski, DuPage Area Education Authority, at Community Specialists, Elmhurst.

"We have increased the units which provide experience for entry-level jobs in data processing. More lessons have been written for becoming a computer operator and more time is available on computers to learn user activities such as preparing spreadsheets." Sharilyn V. Willer, DuPage Area Education Authority, at Automatic Data Processing, Schaumburg.

"Before VIP I only taught from my CADS schooling. It was great for my students. Looking forward to another VIP experience in the summer of 1987!" Maynard L. Roberts, Elgin Community College, at Tri-Dim, Elgin.

"I have introduced more records management activities for students in the program who are studying the management core. Have required students to intensify their study of skills in oral communications via telephone techniques, in order taking and placing, written instructions, memos, and sales presentation." Gail Moran, DAVEA, at EJK Gold Connection, Addison.

"Students are doing more work on cars instead of classroom engines, etc. Students are estimating costs of repair jobs. Students are doing more of their planning of how to do a repair job. I do not log out the procedure as I did before. Students are doing more diagnosing than before. We cover a wider range of repair jobs than we did before. Students have more responsibility for the customer's car." Ross Mings, Hinsdale Central High School, Mitcheday's Business.

Private-Sector Perceptions:

[Employers were asked: "What do you consider to be the most important or valuable part of the VIP project?"]

"The most valuable part of the VIP project is the interaction between the teacher and industry and extra insight that both receive as a result of the exposure." Robert Scarlett, Dukane Corporation, St. Charles.

"The interchange between the industry personnel and the instructor -a good learning situation for both." Robert T. Klemm, Commonwealth Edison Production Training Center, Wilmington.

"One of the most valuable parts of the program would be the exposure of the participant to 'what is going on' in their career field on the outside. As employer it gives you an opportunity to keep in tune with the teacher/instructor environment." Michael Shoemaker, Motorola Foodworks, Schaumburg.

"We at Caterpillar feel that by offering educators the opportunity to work (gain experience) for the company allows them to assess the true needs of business." Michael J. Krickeberg, Caterpillar, Aurora.

"I think it is important that some 'real world' experience goes into the teaching programs. Classroom and textbooks are wonderful, but when the kids go out and get a job, it is a lot different deal." Dan Nelder, Nelder Ford Sales, Inc., Lexington.

"Teacher's will have an accurate perception of today's workforce as well as the needs of today's business. In many cases, through no fault of their own, teachers are not afforded the opportunity to see how the courses they teach relate to the business world." Dennis O'Leary, White Consolidated Industries, Inc., Belvidere.

"Allowing the teachers to become involved in real life problems/solutions. Exposure to new technology and hands-on experience. These things should increase the teacher's value as an educator of our future workforce." Dick Feldt, Reichert Chevrolet-Buick, Crystal Lake.

"I think it is a great experience for the teachers to see exactly what is really involved in the field. Sometimes a profession is over-glamorized. The teacher will be able to pass on to the students what is needed in the way of skills and personal attributes." Shelley Latta, Mansards, Ltd., Morris.

"The opportunity to share with a high school business teacher about training provided in a large corporation and, most importantly, what is expected of those entering the workforce, so this can be conveyed to our young people." Patricia P. Harper, AMOCO Corporation, Chicago.

Results

Many of the suggestions have been incorporated into changes in the VIP program. ICoVE Internship Committee member Rep. Gordon Ropp proposed the legislative amendments and championed their passage, thus opening the doors for the following:

- Administrators and guidance counselors to participate,
- Corrections personnel to participate on a 12-month basis,
- Public-sector employment for health care and law enforcement, and
- Development of standards for evaluation of participation in the VIP at the local level.

In 1988, a total of 1,124 teachers, instructors, guidance personnel and administrators participated in VIP, bringing the three-year total to 3,426. This represents approximately 17% of all vocational education personnel in Illinois or approximately one-fifth of all the teachers/instructors and 1/3 of all full-time teachers/instructors. (Less than 50 guidance and administrative personnel have participated.)

Funds were decreased from the $1,500,000 appropriated in FY 86 and 87 to $1,443,000 appropriated in FY 88. Funds were allocated to the 18 ESCs and portions not obligated in one ESC were redistributed to other centers where there was a need.

Less than 10% of the participants seek university credits. This is attributed to the fact that most participants are "mature" teachers who are probably "topped out" on local salary schedules and do not need the credit.

Less than five of the newly eligible administrators participated. It is thought that it will take a year or so for the VIP to be incorporated in administrators' summer work schedules.

About 45 guidance counselors participated in the 1988 VIP program. Again, subsequent participation is expected to increase.

Corrections personnel have started their participation which now extends the time frame to 12 months.

During FY 89, Southern Illinois University at Carbondale will be conducting an in-depth follow-up of 1988 participants.

ICoVE commends the Illinois VIP initiative. Private-sector response from outside Illinois, particularly the St. Louis area where many teachers/instructors found internships, indicates that the Illinois model may soon be a model in other states.

PROFESSIONAL ORGANIZATION PARTNERSHIPS

The Illinois Vocational Association (IVA) has a membership of approximately 2,600. Membership includes teachers/instructors, administrators, guidance counselors, and personnel involved with special needs programs and student services. Approximately one out of every eight educators involved in vocational education is a member of the state's professional association. Two primary objectives of the association are in-service education and professional development of the membership.

The State Board has developed a partnership with the IVA to assist in delivering in-service education which targets State Board priorities. Through a special contract, IVA serves as the delivery mechanism for workshops, seminars, and tours designed to update teacher competencies. Activities are open to all vocational education personnel, regardless of IVA membership.

During FY 88, occupation-specific workshops, seminars, and tours helped to update 774 teachers/instructors and ancillary personnel. An additional 347 participated in interdisciplinary and sex equity activities.

Below is a list of activities and services resulting from the in-service education partnership.

	Workshops	Seminars	Tours	Teachers/ Instructors	Ancillary Staff	Total
Occupational-Specific	22	6	6	735 75%	39 29%	774 70%
Non-Specific to Occupation	5	3	2	251 25%	96 71%	347 30%
TOTAL	27	9	8	986	135	1,121

In addition to State Board activities, the IVA provides in-service education throughout the year. An annual statewide conference is attended by over 700 IVA members. Nearly 900 members attend other in-service education provided by IVA that is specific to their occupational expertise. The IVA affiliate organization for minorities offers additional in-service, including public hearings for its 500 members each year.

EQUIPMENT

Modernization of equipment needed for skill development has become a difficult task to accomplish. Rapid technological changes make the cost of equipment replacement nearly prohibitive in some occupational areas.

The State Board allows program improvement funds, as previously discussed, to be used for equipment. The funds help to provide a variety of teaching materials which can supplement hands-on experiences.

Through incentive funds provided by weighted criteria in the funding formula, the State Board encourages expanded use of the off-campus concept. The off-campus concept involves the use of private-sector facilities and equipment during unused periods or through lease agreements with the company.

QAP funds have also supported field trips for program participants to go to business and industrial settings to observe or actually use equipment for short periods of time.

Community College Equipment Grants

The Illinois Community College Board has established grants for advanced technology equipment in an effort to assist community colleges to "face a continuing challenge to keep pace with rapidly advancing technology." (See Table 8.) In the Annual Report pertaining to these grants, the executive director of the ICCB points out, "In addition to impacting curricula, advances in technology have impacted teaching and learning processes as computers used as instructional aids have been introduced into the classroom."

TABLE 8

USE OF ADVANCED TECHNOLOGY GRANTS
FY 88

Program	Number of Districts	Percent of Total Funds
TOTAL	38	100%
Transfer Programs	11	11.1%
Adult Education Programs	2	.4%
Support Services	3	5.8%
Program Area Not Reported	1	1.5%
Occupational (subtotal)	37	81.2%
·Agriculture	1	.4%
·Forestry	1	.4%
·Business Management	1	2.0%
·Office Careers	27	23.4%
·Communications	1	1.4%
·Cosmetology	2	.1%
·Engineering Related	22	31.9%
·Health Services	6	3.7%
·Home and Institutional Services	3	.4%
·Protective Services	4	2.3%
·Mechanics and Repairers	12	7.2%
·Precision Production	10	8.0%

Approximately $1,346,300 was made available ($1,329,131 was spent) to community colleges during FY 88 to assist in obtaining state-of-the-art instructional equipment. The funds assisted 52 program areas in the colleges and were supplemented by approximately $88,000 from other sources. The grants ranged in size from $10,000 to $240,000, with a $26,000 median.

In addition to the grants for state-of-the-art instructional equipment for advanced technology, community colleges reported spending an additional $5,223,584 for instructional equipment bringing the total to $6,552,715.

The advanced technology equipment acquired with the grants included:

- 348 computers (32 community college districts).
- 900 computer-related items such as software, workstations, computer components.
- 130 electronic items, e.g., digital, manufacturing and laboratory equipment, (19 districts).
- 50 telecommunications/video equipment (12 districts).
- 24 instructional office equipment (8 districts).
- 100 other shop, laboratory and miscellaneous items.

Occupational programs received slightly more than 80% of the advanced technology grants with office careers and engineering related occupations receiving over half of the funds. See Table 8, page 38, for additional information about the grant funds. (Source: Illinois Community College Board)

PROGRAM CHANGES

Updating program offerings to reflect programs needed to prepare and maintain workers with marketable skills needed in both the present and future workforce is difficult. In addition to making curriculum changes, schools must consider student interests. Often tenured faculty must be considered. Usually programs are phased out or courses are shifted to more appropriate programs.

Table 9, page 40, provides a four-year history of added and dropped programs throughout Illinois. The table is broken into three levels of programs (i.e., secondary, postsecondary, and adult). Information is from the vocational education data system (VEDS) of reporting.

Program changes at the secondary level began to occur fairly soon after the effort toward secondary regional delivery systems began. The number of changes subsided considerably beginning in 1986. During the four-year period, secondary schools had 593 program changes with a net loss of 83 programs.

Postsecondary program changes followed a different pattern. The number of changes increased slightly during the first three years and dropped to about one-half during the fourth year. During the four-year period, postsecondary institutions made 497 program changes with a net gain of 87 programs.

The adult program changes do not create a pattern, except that the four-year period showed little activity. The number of programs is considerably less than the number of secondary or postsecondary programs. In total, 87 program changes were made over the four-year period for a gain of 13 programs. Because many adult programs are actually courses, for updating and upgrading purposes, the activity or program changes do not reflect a clear picture of activity. Courses can vary from year to year without being reflected in the reporting system.

In reporting program changes (added or dropped), institutions indicate the reason changes were made. (See Figures 2 and 3, pages 41 and 42.) During the first three years, student interest effected 26% of the changes, with labor market needs being the reason for 24% of the changes. Labor market information effected the postsecondary changes at a rate more than double its influence on secondary and adult changes.

Student interest was the biggest factor for adult program changes. Knowing that 81% of the adults are enrolled in courses for upgrading their skills and/or providing orientation for possible occupational changes indicates that the student interest for adult programs is also driven by labor market needs.

In 1988, (Figure 3, page 42) student interest and enrollment factors gained momentum as the basis for program changes (as compared to the previous three-year composite). Labor market needs decreased as a basis or reason for making changes. Financial resources, primarily a secondary reason, showed a marked gain in its influence on programs. Nearly all of this occurred at the secondary level. Over one-fourth of the programs dropped were attributed to insufficient financial resources.

TABLE 9

PROGRAMS ADDED AND DROPPED, 1985–1988

SECONDARY PROGRAMS	1988	1987	1986	1985	Total
Added	34	52	62	107	255
Dropped	60	60	80	138	338
Total Changes	94	112	142	245	593
Differences	-26	-8	-18	-31	-83
POSTSECONDARY PROGRAMS					
Added	39	91	88	74	292
Dropped	43	64	47	51	205
Total Changes	82	155	135	125	497
Differences	-4	+27	+41	+23	+87
ADULT PROGRAMS					
Added	4	16	19	11	50
Dropped	5	14	5	13	37

(cont'd)

ALL PROGRAMS (COMPOSITE)

Total Changes	9	30	24	24	87
Differences	-1	+2	+14	-2	+13
Added	77	159	169	192	597 (149 ave.)
Dropped	108	138	132	202	580 (145 ave.)
Total Changes	185	297	301	394	1,177 (294 ave.)
Differences	-31	+21	+37	-10	+17 (4 ave.)

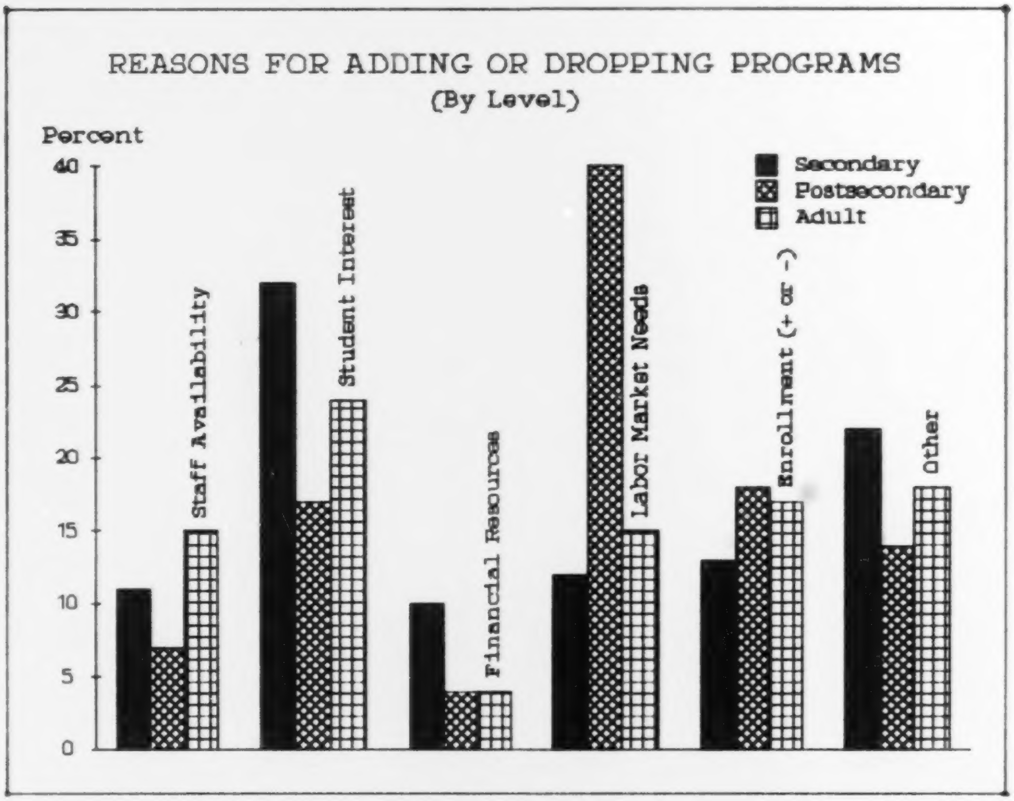

Figure 2: Reasons institutions added or dropped vocational education programs, by level of instruction, 1985-1987.

The 1988 program changes were reviewed by ICoVE to determine the major causes for adding programs and for dropping programs. (See Figure 3, page 42 and Table 10, page 43.) The increase and decrease of student enrollment accounted for over one-third of the programs dropped at the secondary level, but was not a factor for adding programs. However, student interest (gathered from interest inventories) accounted for nearly one-half of all the programs added.

Over one-fourth of the secondary programs which were dropped were done so because of the lack of financial resources. This was not a factor at the postsecondary level.

At the postsecondary level, enrollment decreases account for 60% of the programs dropped and only 2% of those added.

Over half, nearly 60%, of the programs added at the postsecondary level were added because of labor market need. Of those dropped, one out of five was dropped because of diminishing labor market need. The influence of labor market information was not as prevalent at the secondary level. It influenced about one of every eight additional programs and 1% of those dropped. Other reasons cited for dropping or adding programs, particularly at the postsecondary level, often involved certification requirements of various occupations and redesigning programs under the EFE system.

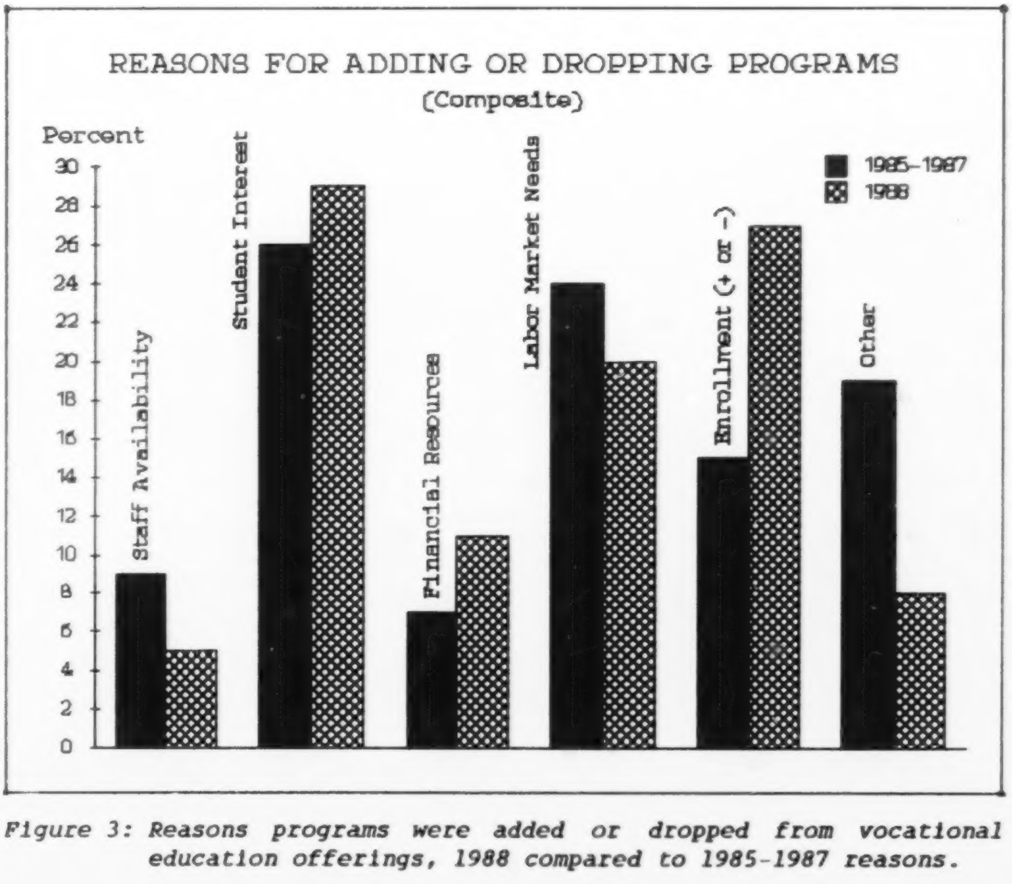

Figure 3: Reasons programs were added or dropped from vocational education offerings, 1988 compared to 1985-1987 reasons.

Community college program changes. The Illinois Community College Board adopted a statewide program review and evaluation process in 1983. The process is designed on a five-year cycle. During 1988, the first cycle was completed. During the five-year period, 7,402 instructional programs and 575 support programs were reviewed. The process includes a "two-year continued review" component which was used for over 700 of the instructional programs.

Action plans resulting from the review process identify improvements needed in the program. Some programs are identified for being discontinued or phased-out. Community colleges attempt to phase out programs, rather than to discontinue them immediately, in order to allow students already enrolled an opportunity to complete the program. Program improvement actions common among community college programs are 1) modifications to curriculum and 2) enrollment limitations established because of the labor market.

TABLE 10

REASONS FOR PROGRAM CHANGES, 1988

	Drop		Add	
	Secondary	Postsecondary	Secondary	Postsecondary
Staff Availability	6%	0	13%	2%
Student Interest	25%	13%	48%	37%
Financial Reasons	28%	4%	3%	4%
Labor Market Need	1%	20%	13%	56%
Enrollment Increase/ Decrease	36%	60%	0%	2%
Other	4%	4%	25%	0%

[1] Adult changes were minimal, not included.

Some programs designated for discontinuation are not actually withdrawn if there is reason to believe that labor market needs may return in the near future. Table 11, page 44, provides more specific information about programs discontinued.

Of occupational programs in community colleges, business programs had the largest number identified for discontinuation. Some specific programs, particularly those offering a certificate, were consolidated as part of a larger program to provide a broader skill base to students. Some of the courses in these programs are used for upgrading of workers; through consolidation, these remain available.

The second largest number of occupational programs targeted for discontinuation was in the trade and industrial area. Like the business programs, many of the trade and industrial programs were consolidated. Some were totally modified and became programs for workers wishing to update their skills.

The agricultural economy in Illinois has caused considerable change in agricultural programs in community colleges. Many have shifted emphasis to agricultural business and supply programs in lieu of agricultural production.

Poor program enrollment and program completion in the home and institutional service areas, particularly the child care field, have caused many colleges to discontinue programs.

Programs for mental health technicians, practical nursing and dental assisting experienced heavy cancellation during the five-year period, as well.

Placement in public and protective services, particularly within the past year, has been so poor that many of these programs are being discontinued. The need for advanced study and retraining for job advancement in these areas is causing community colleges to urge students to pursue a four-year degree.

TABLE 11

COMMUNITY COLLEGE PROGRAMS DISCONTINUED OR BEING PHASED OUT AS A RESULT OF THE EVALUATION AND REVIEW PROCESS

Programs	1984–1986	1987	1988	Total
TOTAL (All Programs)	137	39	103	279
Transfer Programs	48	5	29	82
General Studies	1	5	0	6
ABE/ASE (Adult)	0	2	0	2
Occupational (Subtotal)	88	27	74	189
·Agriculture	7	0	6	13
·Business	26	11	23	60
·Personal Services	0	1	0	1
·Engineering Related	8	6	1	15
·Health	9	2	7	18
·Home & Institutional Services	14	1	3	18
·Parks & Recreation	0	1	0	1
·Library	2	0	0	2
·Public & Protection Services	4	2	10	16
·Trade	17	3	21	41
·Visual & Performing Arts	1	0	3	4

Source: Illinois Community College Board

EDUCATION FOR EMPLOYMENT PARTICIPANTS

VEDS Data

Enrollment information in this section (and throughout ICoVE's reports) is from the vocational education data system (known as VEDS) which is used for federal reporting. It is important to realize that the VEDS enrollment does not include all vocational education participants. VEDS reports only those students enrolled in programs which are funded through the reimbursement formula.

Examples of enrollments not included in these data are HITS (High Impact Training Services) participants; CHEP (Consumer-Homemaker Education Program) participants; and special programs using the project or special contract method of funding to serve special populations such as limited English proficient, teen parents, single parents, handicapped, and others. Data collected about participants in special projects or contracts is not uniform with the VEDS, thus making combining of the information difficult. Some of the special project participants may be in additional programs that would cause them to be counted, but the extent of this is unknown. Students served through the 8% JTPA funding system are not included in the VEDS enrollments either. Even though these programs are not funded with federal funds, state vocational education funds and state general revenue funds are used to provide matching requirements. The 8% participants should be included to reflect Illinois' effort, but more importantly the information is needed for planning purposes.

Because HITS, JTPA 8%, special project-funded programs, and others are not included in the reporting system, information about the kinds of jobs for which these individuals are being prepared is missing (i.e. labor market supply information). In addition, special population groups are being served. Data compiled through the VEDS and through special project reports are not compatible.

The VEDS also needs to be expanded to collect information from the QAP and VIP programs. Information concerning these types of activities, number of persons benefitting, private-sector involvement, equipment acquisition, curriculum renovation, teacher in-service education, and other regional and community college efforts would provide valuable accountability and planning data. Duplicated headcounts could be identified as part of the effort to show services provided to enrolled vocational education students.

Some type of JTPA designation (for both Title II and Title III) needs to be added to VEDS to reflect the number of JTPA clients being served in vocational education programs. JTPA programs provided by the institutions should also be incorporated into the system.

Another adjustment needed in the VEDS reporting relates to the majority of vocational education enrollments. This is the group reported as being enrolled in "orientation, courses, or courses for upgrading." The system does not differentiate.

At the local level, a student may enroll in a"course" as a means of exploring a career field. This may or may not be orientation. The community colleges have a system of identifying participants who enroll for "personal interest or improvement." This system may have utility in other institutions, particularly in adult programs. The ICCB also identifies persons who enroll to improve skills, upgrade skills, or learn new skills that may be job-useful in their current employment or for employment advancement. The information has not been infused into the VEDS information so is not used beyond the community college system itself. These data are extremely valuable as accountability and planning information.

An accurate and useful assessment of the impact of vocational education is not possible unless information about its intent and the intent of its participants is available. Vocational education has a great deal to offer to both workers and students who want or need to acquire specific new skills or to update existing ones. State-level data needs to recognize these purposes. Without clear definitions, vocational education's "supply data" going into labor market information is not accurate. Accountability and impact cannot be assessed.

Information about acquired competencies of those individuals who exit programs before completion would also be helpful. Many of these exits may represent job preparation in an occupation, even though the level of preparation is different than that intended by the program. For example, an individual may not complete a construction trades program, but may have acquired skills necessary for dry wall employment or as a helper in several specific areas of the construction trades fields.

Some system of identifying the occupational competencies of individuals who exit programs (e.g "leavers") needs to be developed. At one time the system identified such program leavers as those who "left with marketable skills" or "left without a marketable skill."

The VEDS system has many positive attributes, but it needs expansion to include all vocational education participants and to differentiate more clearly among orientation enrollees, course "samplers" and courses providing needed new, additional, or updated skills. It also needs data on the skills of both "completers" and "leavers" to assess impact. If properly designed, the VEDS reporting mechanism could be used to streamline the RDS plans and community college plans.

Program Enrollment

Illinois participation in Education for Employment decreased by 5% between 1987 and 1988. The greatest decline was in the postsecondary and adult levels with enrollments at technical institutes and community colleges experiencing the largest enrollment decreases, 10% and 8% respectively. Area vocational centers had a 6% decline, while comprehensive high school enrollment in EFE fell 3% (see Table 12). However, it is important to note that one RDS was in the reporting system. All enrollments were included in the high school count because the AVC enrollments were not separated out. Therefore, the AVC secondary enrollment figure is missing some enrollments that were credited to high schools.

TABLE 12

VOCATIONAL EDUCATION ENROLLMENT CHANGES BY TYPE OF INSTITUTION, INCLUDING LEVEL

Institution	1987	1988	% Changes
HIGH SCHOOL			
Secondary[1]	374,985	367,374	2% ↓
Adult	17,460	14,263	18% ↓
TOTAL	392,445	381,637	3% ↓
% of Total Vocational Education Enrollment	54%	55%	1% ↑
AREA VOCATIONAL CENTERS			
Secondary[1]	19,011	17,902	6% ↓
Adult	4,290	4,004	7% ↓
TOTAL	23,301	21,906	6% ↓
% of Total Vocational Education Enrollment	3%	3%	0%
COMMUNITY COLLEGES			
Postsecondary (Total)	278,088	256,051	8% ↓
% of Total Vocational Education Enrollment	38%	37%	1% ↓
TECHNICAL INSTITUTES			
Postsecondary	23,502	22,138	6% ↓
Adult[2]	1,212	-	-
TOTAL	24,714	22,138	10% ↓
% of Total Vocational Education Enrollment	3%	3%	0%
STATE AGENCY, POSTSECONDARY ONLY (Adult Correctional Facilities)			
Postsecondary (Total)	5,316	5,885	11% ↑
% of Total Vocational Education Enrollment	1%	1%	0%
STATE AGENCY, NOT POSTSECONDARY (Mental Health, DORS, Juvenile Corrections)			
Secondary	158	310	96% ↑
Adult	8,161	8,957	9% ↑
TOTAL	8,319	9,267	11% ↑
% of Total Vocational Education Enrollments	1%	1%	0%

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[1] One regional delivery system was operational in FY 88. All enrollments are shown in the high school data, although some were actually in the AVC.

The only growth in vocational education came from those programs delivered through state agencies. State agencies including Mental Health, Department of Rehabilitation Services, and the juvenile section of Corrections served 51% and 10% more participants (secondary and adult levels, respectively) in 1988 than in 1987. The adult division of corrections (postsecondary level) had an 11% increase.

A review of vocational education enrollment trends by level of instruction follows similar trends. In 1988, the secondary level lost 2% of its previous year's enrollment; the postsecondary declined by 7%; and adult vocational education had the greatest loss of 13% (see Table 13).

TABLE 13

VOCATIONAL EDUCATION ENROLLMENT BY LEVEL OF INSTRUCTION, INCLUDING TYPE OF INSTRUCTION

Level	1987	1988	% Changes
SECONDARY			
High Schools	374,985	356,645	2% ↓
Regional Delivery System	--	10,729	
Area Vocational Center	19,011	17,902	6% ↓
State Agency, Non-postsecondary (Mental Health, DORS, Juvenile Corrections)	158	310	51% ↓
TOTAL	394,154	385,586	2% ↓
% of Total Vocational Education Enrollment	54%	55%	1% ↑
POSTSECONDARY			
Community Colleges	278,088	256,051	8% ↓
Technical Institutes	23,502	22,138	6% ↓
State Agency (Adult Corrections)	5,316	5,885	11% ↑
TOTAL	306,906	284,074	7% ↓
% of Total Vocational Education Enrollment	42%	41%	1% ↓
ADULT			
High Schools	17,460	14,263	18% ↓
Area Vocational Centers	4,290	4,004	7% ↓
Technical Institutes	1,212	0	-
State Agency, Non-Postsecondary (Mental Health, DORS)	8,161	8,957	10% ↑
TOTAL	31,123	27,224	13% ↓
% of Total Vocational Education Enrollment	4%	4%	0%
TOTAL	732,183	696,884	5% ↓

When comparing vocational education enrollment trends in high schools and area vocational centers with the total enrollment trends of Illinois high schools, grade 9-12, vocational education experienced a smaller proportion of decline than did the total enrollment. The overall 9-12 enrollment decline was 3%; vocational education enrollment declined by 2%. Vocational education's share of the total enrollment fell by 1% (see Table 14, page 49).

Community colleges had a 5% decrease in total enrollments, but vocational education (occupational education) enrollment decreased by 8%. Vocational education's share of the total enrollment in community colleges fell by 1% (see Table 14). In community colleges, only 30% of the enrollees are full-time students. Seventy percent are part-time enrollees.

Community College Degrees and Certificates

Over 18,000 community college students completed work for degrees and certificates in occupational education during fiscal year 1987. See Table 15 below. Over half of these were two-year associate degrees in applied science.

TABLE 14

TWO-YEAR ENROLLMENT TRENDS IN ILLINOIS COMMUNITY COLLEGES HIGH SCHOOLS, AND AREA VOCATIONAL CENTERS, FY 1987 AND 1988

	Community Colleges			High Schools & Area Vocational Centers, 9-12		
	1987	1988	% Decrease	1987	1988	% Decrease
Total Enrollment	680,123	646,105	5% ↓	570,052	555,540	3% ↓
Vocational Education Enrollment	278,088	256,051	8% ↓	393,996	385,276	2% ↓
Vocational Education % of Total	41%	40%	1% ↓	70%	69%	1% ↓

Community colleges also offer certificates in several occupational areas. Three kinds of certificate programs are available. One is for programs less than one year, and one is for programs over one year in length, frequently referred to as the one- and two-year certificate programs.

The third certificate is a vocational skills certificate which denotes competencies in a specific occupational area. The vocational skills certificate program is often chosen by those who go to the community college to update their skills by taking selected courses or who want to develop specific skill competencies in lieu of the more broad preparation needed for an occupational area.

TABLE 15

OCCUPATIONAL DEGREES AND CERTIFICATES IN COMMUNITY COLLEGES, FY 87

	Associate Degree	Certificate			Total
	Applied Science	1 Year or More	Less Than 1 Year	Vocational Skills	
AWARDED (degree or certificate)	9,379	3,452	3,762	329	16,922
COMPLETED (non-graduate)	50	440	791	--	1,281
TOTAL	9,429	3,892	4,553	329	18,203

Participation of Special Needs Populations

The percentage of vocational education's enrollment represented by special needs populations expanded 4% from FY 87 to FY 88. (See Table 16.) Special needs populations include handicapped, limited-English-proficient (LEP), and disadvantaged. (Definitions and acronyms are in the front of this report, page vii.)

TABLE 16

SPECIAL NEEDS ENROLLMENT

Handicapped, Disadvantaged, Limited-English-Speaking Proficiency

Population	Enrollment	% of Special Needs Enrollment	% of Total Vocational Education Enrollment
1987			
Handicapped	45,966	19%	6%
Limited-English-Proficiency (LEP)	9,439	4%	1%
Disadvantaged	185,075	77%	25%
TOTAL	240,480	100%	32%
1988			
Handicapped	49,549	20%	7%
Limited-English-Proficiency	10,541	4%	2%
Disadvantaged	186,468	76%	27%
TOTAL	246,558	100%	36%

About three-fourths of all special needs populations participating in vocational education represent the disadvantaged group. Approximately one of every five special needs students is handicapped.

Of the total grade 9-12 enrollment in Illinois public schools, 5.3% of the students are special education students. Of the total FY 88 vocational education enrollment, 7% are handicapped, 2% are LEP, and 27% are disadvantaged (includes both academic and economic), bringing the special needs population to 36% of the total vocational education enrollment. Vocational education enrollment percentages include postsecondary and adult enrollments as well as secondary. The proportion of special needs students in secondary programs is slightly higher than at the other two levels.

Bilingual education programs in Illinois public schools serve over 45,000 students in grades K-12, representing 2.5% of the total enrollment. Vocational education (all levels) serves 10,500 limited-English-proficient students, representing about 2% of the vocational education enrollment.

ICoVE's Technical Report #5, Access of Targeted Populations to Quality Vocational Education contains additional information about the special needs population to be served and the programs, services, and activities available in vocational education to serve the various groups in need.

Overall, participation of special needs populations in Illinois' Education for Employment programs has grown steadily over the past few years. The consolidation of services for these groups as provided through the new secondary regional delivery systems and articulated with the community college districts is predicted to increase services even more. The growth of services to special needs populations is expected to be most realized in the sparsely populated rural areas.

Funds from the Perkins Act have made a significant impact on the State's ability to serve disadvantaged, handicapped, and LEP populations. Approximately $9,184,000 in federal funds were available in FY 88. Matching requirements caused the actual amount expended to be at least doubled. In addition, approximately, $7,197,000 of federal funds were available from the Perkins Act for other targeted population groups with the matching requirement causing the amount expended to be twice the federal allocation.

Information about funds for serving special population groups is in ICoVE's Technical Report #4, Distribution of Vocational Education Funds.

Cooperative Education

The percentage of all vocational education students who participate in cooperative education programs increased from FY 87 to FY 88 at both the secondary and postsecondary levels by 12% and 8%, respectively, but decreased by 11% at the adult level. At the secondary level, 8% of the vocational education students are enrolled in cooperative education. At the postsecondary level, less than 1% (.2%) are in cooperative education. Only 2% of the adult-level participants have cooperative education experience.

TABLE 17

COOPERATIVE EDUCATION ENROLLMENT
1987 AND 1988

Level & Institution	1987	1988	% Change
SECONDARY	27,805	31,221	12% ↑
High Schools	NA	29,281	–
Area Vocational Centers	NA	1,231	–
Regional Delivery System	NA	637	–
State Agency, Non-Postsecondary (Mental Health, DORS, Juvenile Corrections)	NA	72	–
Level & Institution	1987	1988	% Change
POSTSECONDARY	613	659	8% ↑
Community College	NA	498	–
State Agencies (Corrections)	NA	161	–
ADULT	598	533	11% ↓
State Agency, Non-Postsecondary (Mental Health, DORS)	NA	NA	–
TOTAL	29,016	32,413	8% ↑

On-the-job training (OJT) afforded through cooperative education reaches a small percentage of all vocational education enrollees (slightly less than 5%). Available time to incorporate OJT into a school day is a major barrier to expansion of cooperative education. The benefits of job experience and learning work attitudes, practices, and skills in the real workplace are available to limited numbers of students.

The cooperative education experiences of the WECEP (potential dropouts) and ESLP (dropouts) programs, most of which are now funded with 8% JTPA funds and state funds, are not included in cooperative education enrollment figures because of the way VEDS is gathered.

Table 17 (above) provides additional information about cooperative education within the various institutional settings. The information can be compared to the total institutional enrollments shown on Table 13, page 48.

Apprenticeship Programs

Ninety-two (92%) percent of the apprenticeship programs operating in cooperation with vocational education are at the adult level. (See Table 18.) The adult participation in apprenticeship increased slightly from 1987 to 1988, but overall, apprenticeship has decreased slightly, less than 1%.

A state task force on apprenticeship has been assessing apprenticeship programs and working with the Illinois Department of Labor to seek ways to expand participation in apprenticeship programs throughout the state. ICoVE is a member of this task force. The State Board, using Perkins funds, contracted with a community college district to assess why many adults are unable to succeed in apprenticeship programs. The assessment revealed that barriers were caused by poor academic skills, inadequate personal relationship skills, poor study habits, lack of commitment to the program, and poor organizational skills.

A model program designed to bring participants' skills to a level which will permit success in apprenticeship programs was designed and field-tested. The field test had a 78% success rate for those who participated. The State Board project will continue in FY 89. It is expected to be useful in recruiting people to apprenticeships, as well as increasing their capacity for success.

TABLE 18

APPRENTICESHIP ENROLLMENT
1987 AND 1988

Level & Institution	1987	1988	% Change
SECONDARY	0	0	0
POSTSECONDARY			
Community Colleges	506	342	32% ↓
State Agencies, Postsecondary (Corrections)	33	17	48% ↓
ADULT			
High Schools	4,044	4,257	5% ↑
Area Vocational Centers	51	11	78% ↓
TOTAL	4,634	4,627	.2% ↓

The task force working on apprenticeship is working to develop pre-apprenticeship programs at the secondary level. In early FY 89 the task force intends to provide orientation about apprenticeship to guidance counselors.

Consumer and Homemaker Education Participation

The Perkins Act provides special funding for consumer and homemaker education programs. The purpose of the programs is to prepare for the occupation of homemaking. Program content as described in the Perkins Act includes instruction for the following:

- managing individual and family resources,
- making consumer choices,
- managing home and work responsibilities,
- assisting aged and handicapped,
- improving responses to individual and family crisis,
- strengthening parenting skills,
- improving nutrition,
- conservating limited resources,
- understanding the impact of new technology on life and work, and
- applying skills to jobs and careers.

In Illinois, the programs are referred to as the Occupation of Homemaking programs. These programs served 40,483 students during fiscal year 1988 and were primarily at the secondary level (see Table 19).

Additional information about Consumer and Homemaker Education Programs is provided in ICoVE's Technical Report #14, Consumer & Homemaking Education and #12, Serving Economically Depressed Areas.

TABLE 19

OCCUPATION OF HOMEMAKING ENROLLMENT

SECONDARY	High Schools 38,967	Area Vocational Centers 618	Total 39,585
POSTSECONDARY	State Agency (Corrections) 85		85
ADULT	State Agency 813		813
TOTAL			40,483

EXISTING AND FUTURE WORK FORCE NEEDS FOR MARKETABLE SKILLS IMPROVED PRODUCTIVITY, AND ECONOMIC DEVELOPMENT PROMOTION

To assess how Illinois has delivered programs to meet the existing and future work force needs for marketable skills, ICoVE examined the instructional programs and the level of the instructional programs by reviewing the enrollment in various programs. ICoVE also reviewed labor market needs which identified both industry employment and occupational employment projections. These two sets of information were compared to determine the extent to which Illinois is attempting to respond to the needs of the work force.

Information used included primarily the State Board's VEDS reports and the Department of Employment Security's employment projections. Information from ICCB's "Data and Characteristics" compilation was also used.

INSTRUCTIONAL PROGRAMS

Through the vocational education program approval process, programs are designated in the local plan (RDS plan and community college plans) as either a "training-level program," or a program offering designed to provide orientation, or a single course that provides skills which may be adjunct to other programs or provide upgrading of skills.

Training-level programs are grades 11 and 12 at the secondary level and consist of a sequence of courses designed to prepare participants with knowledge and skills needed for employment in an occupation. At the postsecondary level, programs also consist of a sequence or series of courses organized to provide knowledge and skills needed for employment in an occupational area.

Orientation-level programs are most frequently at the secondary level, grades 9 and 10. Most adult and postsecondary programs that are not designated as "training level" are courses providing upgrading of skills and identified in community college documents as "vocational skills" programs.

The vocational education data system (VEDS) generates enrollment by two levels. (See Tables 20, 21, and 23, pages 58, 60, 63.) The first is the training level, the second is a cluster which includes orientation and courses, including courses for upgrading. This cluster does not present a clear picture of what kind of program is being provided to those 371,630 who are enrolled. One way to differentiate would be to assume the secondary enrollments at the AVCs and high schools reported in the cluster are generally orientation and "course sampling" for the purpose of exploration by secondary students.

In the case of postsecondary and adult programs, one might assume the cluster represents courses for upgrading skills in the majority of instances, particularly at the adult level. However, it is reasonable to assume that community college students also "sample" courses for the purpose of exploration (Tables 21 and 23, pages 60 and 63).

The issue becomes further complicated by comparing the information provided by the ICCB on Table 22, page 62, with the VEDS enrollment report on Table 21, page 60. ICCB reports an occupational enrollment of 195,775, representing 72% of the community college's vocational education enrollment. VEDS shows a training level enrollment of 137,591, representing 54% of the vocational education enrollment in community colleges. ICCB shows a 75,067 enrollment (28% in vocational skills programs or courses offered for upgrading skills). VEDS shows a 118,460 (46%) in community colleges as orientation, course upgrading, etc. Although the enrollments reflect different fiscal years, the discrepancy in the percentages suggests an unclear picture of the instructional program purpose (i.e., training, orientation, or upgrading of skills) resulting from different reporting definitions.

VEDS, a federal data reporting system does not require clear differentiation within the cluster of orientation and courses, but for planning and accountability purposes in Illinois, a more definitive process should be developed. ICCB collects "student intent" in its enrollment process. However, as the enrollment enters the VEDS report, the information is not compatible. The State Board may want to consider the ICCB process for improving information for state planning and accountability purposes in addition to federal reporting.

ICoVE was unable to determine from existing data, the extent to which the State Board's delivery systems (i.e., RDSs and community colleges) provide programs which meet the "existing work force needs for marketable skills" because the clustering of enrollment data for courses, upgrading, and orientation could not be identified by specific purpose. The ICCB process appears to provide the information, but whether or not reporting definitions would be appropriate for other institutions is unknown. Definitions must be consistent in order to have compatible data.

Secondary Programs

Secondary programs account for 46% of the training provided and 58% of the orientation, courses, or upgrading of skills provided in Illinois. Within the secondary system, the high schools provide 85% of the programs for training, the AVCs provide 12%. One RDS reported data in 1988 and it accounted for 3% of the secondary training.

Overall, secondary programs prepare 38% of their enrollees with training level programs and 62% with orientation. Upon examination of enrollment patterns the high schools have 35% of their enrollment in training and 65% in orientation, whereas the AVC enrollment was 94% training level and 6% orientation. (See Figure 4.)

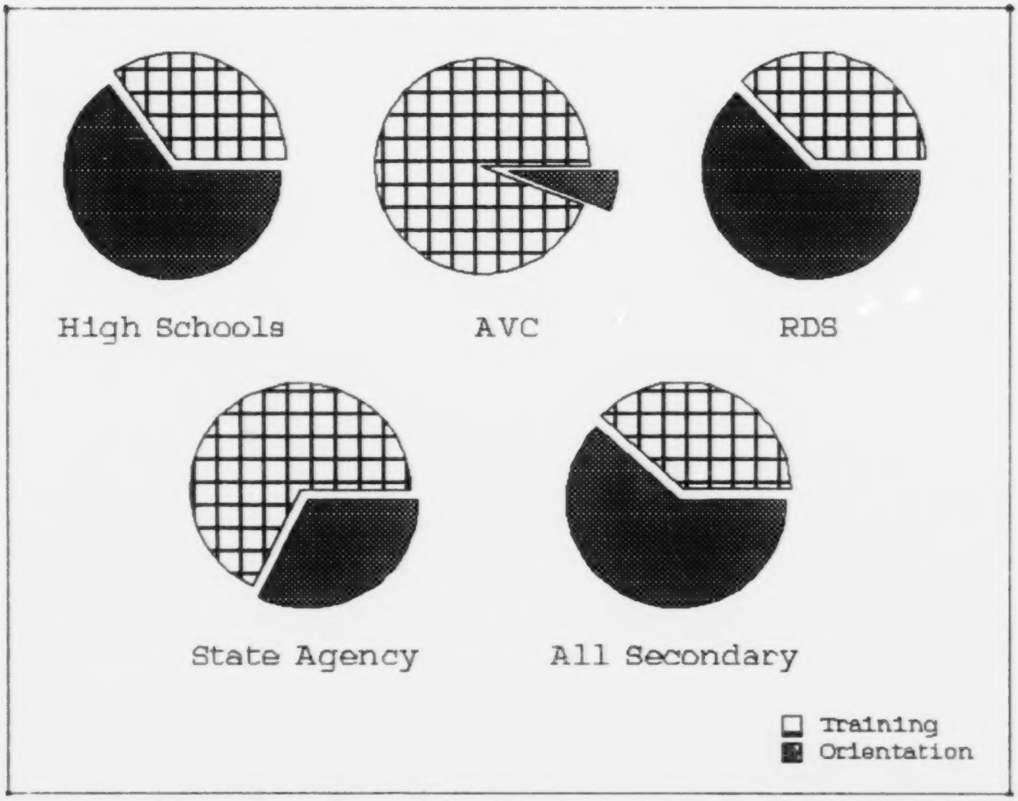

Figure 4: Proportion of secondary enrollment in training and in orientation, courses, and upgrading, by type of institution.

Training at the secondary level concentrates over half of its enrollment in the business and marketing occupations, with 38% in the business and office arena, 13% in marketing and distribution. (See Table 20, page 58.) Home economics, which includes foods service and child care occupations accounts for the next highest portion of the secondary training enrollments (12%). Enrollment in precision production (11%) and mechanics and repairers occupations (10%) follow close behind. Construction trades and agriculture each account for 5% of the training.

A review of the Employment Security's occupational projections reflecting job openings, new jobs, and other employment trends suggests most of the secondary training programs are preparing for occupations having the largest number of annual openings and new jobs. However, there are many fields of employment that secondary programs are not serving. (See Tables 26-30, pages 67-71.)

Orientation, courses, and upgrading program enrollments follow similar patterns as the training programs offered at the secondary level (see Table 20, page 58).

TABLE 20

SECONDARY ENROLLMENT BY INSTRUCTIONAL PROGRAM[1]
FISCAL YEAR 1988

CIP Series	Instructional Programs	High Schools	AVC	RDS	St. Agencies (MH, DORS)	Total	% of Total
TRAINING LEVEL PROGRAMS							
01	Agriculture	5,383	525	30	14	5,952	5%
03	Forestry & Wildlife	2				2	-
04	Environmental Design	65	13			78	-
06	Business Management	517				517	-
07	Business & Office	46,638	2,583	940	32	50,193	38%
08	Marketing & Distribution	15,934	508	584		17,026	13%
09	Communications	39	25			64	-
10	Communication Technologies	83	85			168	-
12	Consumer & Personal Services	893	1,240	173	1	2,307	2%
15	Engineering Technology	15	1			16	-
17	Allied Health	1,916	972	70		2,958	2%
20	Home Economics	12,707	2,006	979	33	15,725	12%
41	Science, Nuclear Power, Chemical Technology	1				1	-
43	Protective Service	396	8			404	-
46	Construction Trades	5,429	1,554		78	7,061	5%
47	Mechanics and Repairers	8,694	4,385	719	20	13,818	10%
48	Precision Production	11,178	2,382	424	12	13,996	11%
49	Transportation, Materials Moving	201				201	-
59	Special Programs	1,453	17		22	1,492	1%
	SUBTOTAL	111,544	16,304	3,919	212	131,979	99%
	% Total Training	85%	12%	3%	(.1%)		(9 less than 1%)
ORIENTATION, COURSES, UPGRADING							
01	Agriculture	7,075	107	197		7,379	3%
04	Environmental Design	17				17	
06	Business Management	763				763	
07	Business & Office	91,934	429	1,661	31	94,055	44%
08	Marketing & Distribution	9,280	2	1,873		11,155	5%
09	Communications	131				131	
10	Communication Technologies	338	3			341	-
12	Consumer & Personal Services	5	33			38	-
17	Allied Health	537	15			552	-
20	Home Economics	24,704	32	1,167	14	25,917	12%
43	Protective Service	160				160	-
46	Construction Trades	15,657	133		5	15,795	7%
47	Mechanics and Repairers	18,477	64	1,177	6	19,724	9%
48	Precision Production	31,911	144	735	35	32,825	15%
49	Transportation, Materials Moving	32	18			50	-
59	Special Programs	5,113			7	5,120	2%

(cont'd)

Table 20, Orientation, Courses, Upgrading (cont'd)

CIP Series	Instructional Programs	High Schools	AVC	RDS	St. Agencies (MH, DORS)	Total	% of Total
	SUBTOTAL	206,134	980	6,810	98	214,022	97%
	% of Orientation, Courses, Upgrading	96%	.4%	4%			(8 less than 1%)
	TOTAL ENROLLMENT, All Programs	317,678	17,284	10,729	310	346,001	
	% All Programs	92%	5%	3%			
	% of Training in Institution	35%	94%	37%	68%	38%	
	% of Orientation, Courses, Upgrading in Institution	65%	6%	63%	32%	62%	

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[1] Occupation of Homemaking program enrollment (39,585) is not included.

Special programs. (Shown on Table 20 as CIP Series 59.) Special programs represent 1% or 1,492 individuals at the secondary level in training programs; 5,120 or 2% of the orientation programs are special programs. These are special programs for special needs populations. The participants are not mainstreamed, but are provided training in separate programs. The occupational areas being studied are unknown. Participants are EMH students, special education students, and others identified as having special needs.

Postsecondary Programs

Postsecondary programs account for 52% of all the training program participants and 37% of the orientation, course, and upgrading enrollment. Within the postsecondary system, community colleges provide 94% of the training, technical institutes provide 2%, and corrections facilities account for 2%.

The proportion of training in relation to the proportion of orientation, course, and upgrading enrollments varies among the types of institutions offering programs (see Figure 5, page 60).

Training programs at the postsecondary level, like the secondary, are concentrated in the area of business. The occupational groups having the next highest focus are different from the secondary training programs. (See Table 21, page 60.) At the postsecondary level, occupations which emerge with relatively large numbers of enrollments include allied health, engineering technology, and protective services. Home economics, mechanics and repairs, and precision production are also popular programs. The orientation, courses, and upgrading programs having high percentages of enrollment nearly mirror the training programs.

Special programs (shown on Table 21, page 60, as the 59 CIP Series) serve 31,101 or 23% of the orientation, course, or upgrading. Special programs data do not identify occupational areas. The programs are separate programs for special needs students.

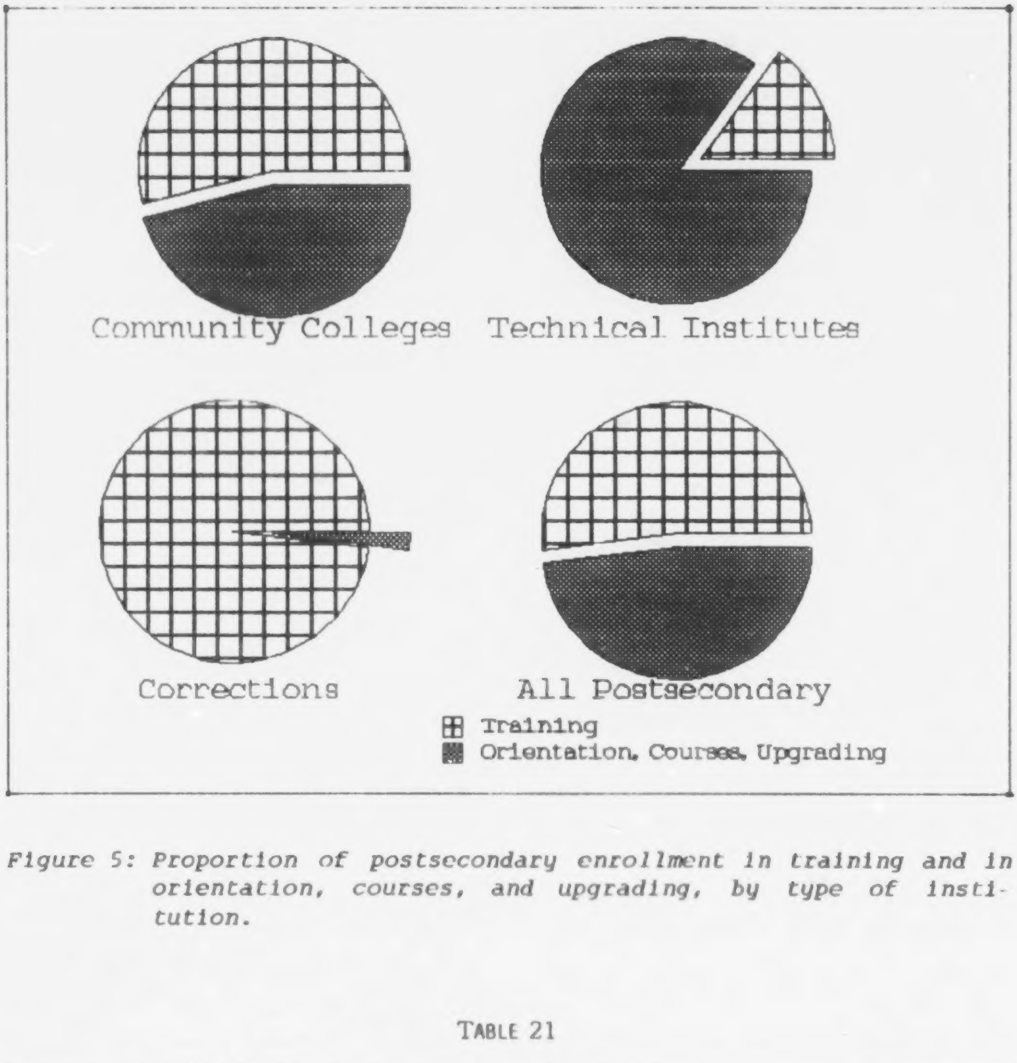

Figure 5: Proportion of postsecondary enrollment in training and in orientation, courses, and upgrading, by type of institution.

TABLE 21

POSTSECONDARY ENROLLMENT BY INSTRUCTIONAL PROGRAM[1]
Fiscal Year 1988

CIP Series	Instructional Programs	Community Colleges	Technical Institutes	State Agencies Corrections	Total	% of Total
TRAINING LEVEL PROGRAMS						
01	Agriculture	2,450		255	2,705	2%
03	Forestry & Wildlife	77			77	-
06	Business Management	13,360		108	13,468	9%

(cont'd)

Table 21, Training Level Programs (cont'd)

CIP Series	Instructional Programs	Community Colleges	Technical Institutes	State Agencies Corrections	Total	% of Total
07	Business & Office	41,496	470	566	42,532	29%
08	Marketing & Distribution	5,826			5,826	4%
09	Communications	487		28	515	
10	Communication Technologies	366			366	-
12	Consumer & Personal Services	1,267	91	125	1,483	1%
15	Engineering Technology	10,811	372	140	11,323	8%
17	Allied Health	12,072	339	183	12,594	9%
18	Health Occupations (Nursing, A.A. Degree)	7,913			7,913	5%
20	Home Economics	10,421		578	10,999	7%
22	Paralegal Secretary	477			477	-
23	Technical Writing and Communication	59			59	-
25	Library Assisting	183			183	-
31	Recreational Leadership	160			160	-
41	Science Nuclear Power, Chemical Technology	222			222	-
43	Protective Service	9,630	355	84	10,069	7%
44	Public Services	1,430			1,430	1%
46	Construction Trades	1,378	95	684	2,157	1%
47	Mechanics and Repairers	9,360	747	1,752	11,859	8%
48	Precision Production	7,691	167	1,280	9,138	6%
49	Transportation, Materials Moving	435	676		1, 111	1%
50	Tech. & Industrial Occup.	20			20	-
	TOTAL	137,591	3,312	5,783	146,686	98%
	% Total Training	94%	2%	4%		(8 less than 1%)
ORIENTATION, COURSES, UPGRADING						
01	Agriculture	878			878	-
06	Business Management	3,343			3,343	2%
07	Business & Office	35,321			35,321	26%
08	Marketing & Distribution	2,516			2,516	2%
09	Communications	5			5	-
10	Communication Technologies	10			10	-
12	Consumer & Personal Services	57			57	-
15	Engineering Technology	15,488	834	2	16,324	12%
17	Allied Health	15,230			15,230	11%
18	Health Occupations (Nursing, A.A. Degree)	89			89	-
20	Home Economics	1,626		12	1,638	1%
22	Paralegal Secretary	2			2	-
23	Technical Writing and Communication	64			64	-
25	Library Assisting	15			15	-
43	Protective Service	435	17,992		18,427	13%
44	Public Services	761			761	-
46	Construction Trades	972		3	975	1%
47	Mechanics and Repairers	819			819	1%
48	Precision Production	9,625			9,625	7%
49	Transportation, Materials Moving	87			87	-

(cont'd)

Table 21, Training Level Programs (cont'd)

CIP Series	Instructional Programs	Community Colleges	Technical Institutes	State Agencies Corrections	Total	% of Total
50	Tech. & Industrial Occup.	16			16	-
59	Special Programs	31,101			31,101	23%
	SUBTOTAL	118,460	18,826	17	137,303	99%
	% Orientation, Courses, Upgrading	86%	14%	-		
	TOTAL ENROLLMENT, All Programs	256,051	22,138	5,800	283,989	
	% of All Programs	90%	8%	2%		
	% of Training by Institution	54%	15%	99.8%	52%	
	% of Orientation, Course, Upgrading by Institution	46%	85%	.2%	48%	

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[1] Occupation of Homemaking program enrollment (85) not included

Table 22 contains information about instructional programs at community colleges. The vocational education program enrollments are illustrated by two titles which indicate the kind of training. The vocational skills area represents courses designed for providing upgrading of vocational skills for the existing work force or for persons wanting to reenter the work force, but needing to upgrade outdated skills.

The occupational enrollment describes those enrolled in programs to acquire initial preparation in an occupational area. The programs include the associate degree program, as well as the one and two-year certificate programs. Of the total vocational education enrollment, occupational enrollments represent 72% and vocational skills enrollments represent 28%. Combined, the two programs represent 41% of all community college enrollment. Some of the non-credit course enrollment may also include some vocational education. Note the differences between this table and Table 21, page 60. The discrepancies are caused by differences required by federal reporting.

TABLE 22

COMMUNITY COLLEGE ENROLLMENT BY INSTRUCTIONAL AREA[1]
FISCAL YEAR 1987

	Annual 1987 Enrollment[2]	% of Enrollment	Fall 1987 Enrollment[3]	% of Enrollment
Baccalaureate Transfer	185,483	27%	115,681	36%
VOCATIONAL SKILLS	75,067	11%	29,921	9%
OCCUPATIONAL	195,775	29%	107,263	33%
Remedial	10,143	1%	3,293	1%

(cont'd)

Table 22 (cont'd)

Annual 1987 % of Fall 1987

	Annual 1987 Enrollment[2]	% of Enrollment	Fall 1987 Enrollment[3]	% of Enrollment
Adult Basic	104,860	15%	33,220	10%
Adult Secondary	25,495	4%	4,757	2%
General Studies	64,686	10%	23,328	7%
General Associates	18,340	3%	6,597	2%
Other	274	Less than 1%	103	Less than 1%
TOTAL	680,123	100%	324,163	100%

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[1] Enrollments are unduplicated head counts.
[2] Annual enrollments include fall, spring, and summer semesters.
[3] Enrollment as of the 10th day of the fall term.
Non-credit course enrollment, Fall 1987 = 55,099
High school student enrollment, Fall 1987 = 1,637

Source: Illinois Community College Board

Adult Programs

Eighty-seven percent of the adult enrollment in training programs occurs through state agency programs. Training focuses in allied health (13%), construction trades (12%), and business and office occupations (12%). Over 40% of the training enrollment is through special programs and data do not indicate the occupational area. Special programs are set up to provide training to populations with special needs. (See Table 23, CIP code 59.)

The single course or orientation-level programs attract a much larger proportion of the enrollment in the business and office occupations (37%) than the training programs. A large percentage are also enrolled in the construction trades (19%) with 10% each enrolled in mechanics and repairers and precision production courses. A large number (12%) participate in special programs.

TABLE 23

ADULT ENROLLMENT BY INSTRUCTIONAL PROGRAM[1]
FISCAL YEAR 1988

CIP Series	Instructional Programs	High Schools	AVC	St. Agencies (MH, DORS)	Total	% of Total
TRAINING LEVEL PROGRAMS						
01	Agriculture			241	241	4%
07	Business & Office		16	735	751	12%
08	Marketing & Distribution			46	46	1%
12	Consumer & Personal Services			4	4	-

(cont'd)

Table 23, Orientation, Courses, Upgrading (cont'd)

CIP Series	Instructional Programs	High Schools	AVC	St. Agencies (MH, DORS)	Total	% of Total
17	Allied Health	284	496		780	13%
20	Home Economics			355	355	6%
46	Construction Trades			760	760	12%
47	Mechanics and Repairers			412	412	7%
48	Precision Production			102	102	2%
59	Special Programs			2,655	2,655	43%
	SUBTOTAL	284	512	5,310	6,106	100%
	% Total Training	5%	8%	87%		
ORIENTATION, COURSES, UPGRADING						
01	Agriculture	406	11	65	482	2%
06	Business & Management	685	86		771	4%
07	Business & Office	5,975	1,493	139	7,607	37%
08	Marketing & Distribution	230	84		314	2%
12	Consumer & Personal Services		19		19	-
17	Allied Health	161	358		519	3%
20	Home Economics	126	19	14	159	1%
46	Construction Trades	3,586	189	68	3,843	19%
47	Mechanics and Repairers	1,150	860	22	2,032	10%
48	Precision Production	1,601	373	95	2,069	10%
49	Transportation & Material Moving	59			59	-
59	Special Programs			2,431	2,431	12%
	SUBTOTAL	13,979	3,492	2,834	20,305	100%
	% of Total Orientation, Courses, Upgrading	69%	17%	14%		
TOTAL ENROLLMENT, All Programs		14,263	4,004	8,144	26,411	
	% of All Programs	54%	15%	31%	100%	
	% of Training in Institution	2%	13%	65%	23%	
	% Orientation, Courses, Upgrading, in Institution	98%	87%	35%	77%	

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[1] Occupation of Homemaking program enrollment (813) not included.

Summary

Summary tables illustrating the number of enrollees in the two kinds of instructional programs follow. The information gives the percentage of enrollments in different types of institutions for the secondary, postsecondary, and adult levels. The percentage of all enrollment, by kind of instruction, level of instruction, and institution is also provided.

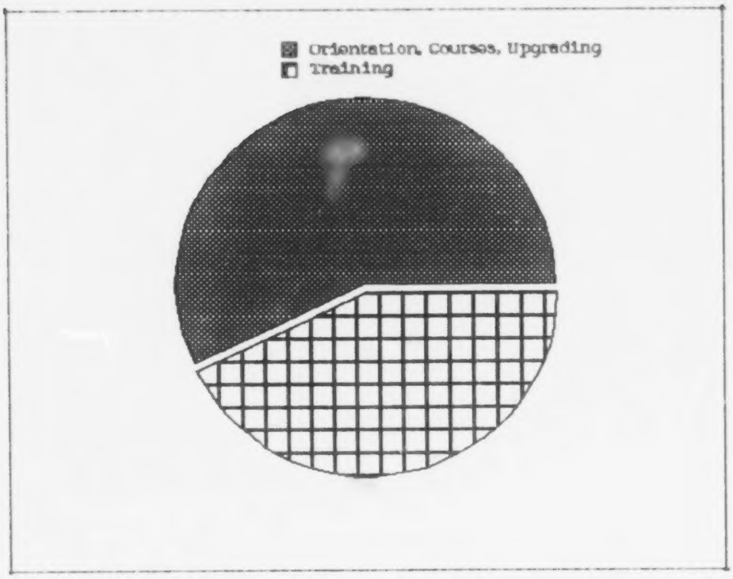

Figure 6: Proportion of all enrollment in training and in orientation, courses, and upgrading.

TABLE 24

SUMMARY OF TRAINING PROVIDED

SECONDARY	High School	Area Vocational Center	State Agency (DORS, MH, Juv. Correct.)	RDS	Total
Total Number Enrolled in Training Programs	111,544	16,304	212	3,919	131,979
% of Total Secondary Training	85%	12%	.1%	3%	100%
% of Total Training, All Levels	39%	6%	. %	1%	46%

POSTSECONDARY	Community Colleges	Technical Institutes	State Agency (Corrections)	Total
Total Number Enrolled in Training Programs	137,591	3,312	5,783	146,686
% of Total Postsecondary	94%	2%	4%	100%
% of Total Training, All levels	48%	1%	2%	52%

ADULT	High School	Area Vocational Center	State Agency (DORS, MH)	Total
Total Number Enrolled in Training Programs	284	512	5,310	6,106
% of Total Adult Training	5%	8%	87%	100%
% of Total Training, All Levels	.1%	.2%	2%	2%

TOTAL TRAINING - 284,771 or 43%

TABLE 25

SUMMARY OF ORIENTATION, COURSES, UPGRADING

SECONDARY	High School	Area Vocational Center	State Agency (DORS, MH, Juv. Correct.)	RDS	Total
Total Number Enrolled in Orientation, Courses, Upgrading	206,134	980	98	6,810	214,022
% of Total Served	96%	.4%	.1%	3%	99.5%
% of Total Orientation, Courses, Upgrading, All Levels	55%	.3%	-	2%	58%

POSTSECONDARY	Community Colleges	Technical Institutes	State Agency (Corrections)	Total
Number Served in Orientation, Courses, Upgrading	118,460	18,826	17	137,303
% of Total Served	86%	14	-	100%
% of Total Orientation, Courses, Upgrading, All Levels	32%	5%	-	37%

ADULT	High School	Area Vocational Center	State Agency (DORS, MH)	Total
Total Number Enrolled in Orientation, Courses, Upgrading	13,979	3,492	2,834	20,305
% of Total Served	69%	17%	14%	100%
% of Total Orientation, Courses, Upgrading, All Levels	4%	1%	.8%	5.5%

TOTAL ORIENTATION, COURSES, UPGRADING - 371,630 or 57%

LABOR MARKET NEEDS

The Illinois work force is continuing to expand each year. The number of workers available for new jobs or to replace current workers as they retire is shrinking. The gap between jobs available and workers to fill the jobs is widened by the mismatch of worker skills and the skills needed in the available jobs.

The Illinois Department of Employment Security provides occupational projections for the State of Illinois. Information in this section draws heavily from the Department's projections by summarizing its report titled Occupational Projections, 1984-1995. Tables from the report are replicated in this report. In analyzing the occupational projections for this review, ICoVE prorated 1984-1995 information to reflect the remaining years of that time frame (i.e., 1989-1995).

Employment projections are made by using two different organizational structures as the basis for projections. One basis is to project employment by the type of industry in which it will occur (i.e., manufacturing, service, government, wholesale, construction). The other basis is to project employment by the type of occupations which will be needed (i.e., secretaries, electricians, cooks, carpenters, truck drivers).

The two methods result in different employment figures. The industrial projections do not include self-employed or unpaid family workers, therefore the industrial projections are lower in number than the occupational projections. Table 26 shows employment projections from 1984-1995 using both methods as developed by the Illinois Department of Employment Security. ICoVE has adapted the information to reflect the 1988-1995 labor force needs.

TABLE 26

NEW JOBS, EMPLOYMENT GROWTH

	1984 Employment	1995 Employment	Growth 1984-95	Growth 1989-95	Average Annual Growth
Industry Projections	4,870,000	5,360,000	490,000	311,800	44,550
Occupational Projections	5,210,000	5,730,000	520,840	331,443	47,350

Both methods indicate a 10% gain in new jobs in the Illinois labor market from 1984-1995. In addition to new jobs, Illinois is faced with finding workers to fill job openings caused by those who leave the labor force (e.g., retirements).

Worker Shortages

Using the occupational projections of 47,350 new jobs per year and the projected annual replacement need of 219,236, Illinois will need 266,586 new entrants into the work force every year between 1989 and 1995 to fill available jobs. These job openings do not include openings caused by shifts within the workplace causing job openings.

Based on census data provided by the State of Illinois, Bureau of the Budget, ICoVE determined that between 160,000 and 168,00 youth will turn age 20 each year between 1989 and 1995. This would leave a shortfall between 98,500 and 106,500 workers annually, even if all 20-year-olds entered the labor market. Many will attend community colleges or universities, enter the military, or choose not to work. Generally about 75% of the Illinoisans between the ages of 20 and 25 are in the labor force.

To meet labor force demands, Illinois will need to bring more people who are currently not in the labor force into it. The total Illinois population is expected to grow about 4% in the 20 years spanning 1980 to the turn of the century. The most likely pools from which to draw include females, minorities, and the middle-aged groups. Table 27 depicts the rate at which different Illinois population groups participate in the labor force.

TABLE 27

PARTICIPATION IN EMPLOYMENT BY AGE, GENDER, AND RACE

Population Group	Percentage of Population in Labor Force
All Illinoisans	64.3%
Men	77.5%
Women	52.3%
Age 16-19 years	51.3%
Age 20-24 years	74.9%
Age 25-34 years	77.9%
Age 35-44 years	79.3%
Age 45-64 years	68.6%
Age 65 and over	14.7%
White	64.9%
Black	58.5%
Hispanic	68.9%
Asians	71.3%
American Indian	71.3%
Foreign Born (Arrived 1970-1980)	70.9%

Source: Employment Security, based on 1980 census data.

Industrial Employment Needs

Industries experiencing the greatest growth are in the private sector (as opposed to public employment in government). These industries are the service industries and the retail industries. The manufacturing industry will continue to decline at least until the turn of the century. Employment growth in Illinois will be in non-manufacturing industries (i.e., retail trade, business services, construction, finance-insurance-real estate, wholesale trade, other services).

Industrial shifts will result not only in the kind of work people do, but also where they will work. The top 50 industries expected to have the largest number of new jobs include only four manufacturing industries. (See Table 28.) In 1980, one-fourth of the Illinois jobs were in manufacturing industries.

Ranking in the top 10 industries having the largest number of annual new jobs are industries such as eating and drinking places, building services, business services, hospitals, care facilities, and grocery stores. These industries need workers who are janitors, food preparation workers, cashiers, nurses, nursing aides, secretaries, and cleaners. The jobs these workers will fill are traditionally lower paying jobs than jobs in manufacturing.

Many industries not experiencing growth will need to hire workers. As workers leave jobs to take new employment or retire, vacant jobs will increase the need for worker replacement. Replacement needs are generally highest in low-paying, low-skill, minimum education jobs. These jobs are generally filled by young workers and older individuals. These groups seek better employment and retirement. Service and sales occupations have high annual job openings because both have high turnover rates.

TABLE 28

50 INDUSTRIES EXPECTED TO HAVE THE LARGEST NUMBER OF NEW JOBS

Industry	Average Annual New Jobs	Industry	Average Annual New Jobs
Eating & Drinking Places	4,673	Commercial & Stock Savings Banks	522
Misc Business Services	4,151	Certified Air Transportation	502
Personnel Supply Services	1,884	Plumbing, Heating & Air Cond	499
Grocery Stores	1,822	Insurance Agents & Brokers	497
Computer & DP Proc Services	1,718	Savings & Loan Associations	497
Nursing & Pers Care Facilities	1,677	Offices of Dentists	478
Educational Services	1,386	Automobile Repair Shops	475
Offices of Physicians	1,085	Individ & Family Social Services	468
Hospitals	1,071	Department Stores	459
Account, Audit, Bookkeep Services	937	Lumber & Bldg Matrls Dealers	408
Local & Long Distance Trucking	906	Construction, Residential	391
Services to Dwellings & Other Bldgs	874	Misc Special Trade Contractors	389
Legal Services	829	Electrical Goods, Wholesale	387
Machinery, Equip & Supplies	786	Outpatient Care Facilities	377
Hotels, Motels, Tourist Ct	718	Radio, TV & Music Stores	377
Fire, Marine & Casualty Ins	709	Engineer, Architect, Survey Serv	369
Misc Personal Services	687	Motor Vehicles & Equp (Production)	362
Arrangement of Transportation	663	Groceries & Rel Prod. Wholesale	338
Misc Shopping Goods Stores	636	Women's Ready-to-Wear Stores	328
Local Gov't, ex Educ & Hosp	613	Drug & Proprietary Stores	322
Telephone Communication	601	Commercial Printing	307
Real Estate Agents & Mgrs	575	Other Social Services	304
New & Used Auto Dealers	553	Security Brokers & Dealers	302
Residential Care	533	Paper & Paper Products	302
Mail, Repro, Com'l Art, & Steno S	527	Other Retail Stores	295

Source: Illinois Department of Employment Security

Occupational Employment Needs

Four broad categories for occupational employment include white collar, blue collar, service, and agriculture/forestry/fishery. As Illinois' economic and industrial bases shift in the years ahead, employment among these four groups will shift to unequal portions.

The white collar group including managerial and management support, professional/paraprofessional/technical, marketing and sales, and administrative support and clerical will comprise about two-thirds of the employment growth.

The service sector will experience employment growth in the services jobs, including health services, household workers, food preparation, protective services, and personal services equal to about one-fifth of the total growth.

Blue collar occupations will be responsible for about one of every seven new jobs. These jobs include occupations in the construction trades, precision production, mechanics and repairers, transportation and material moving, helpers, laborers, and first-time supervisors.

The agricultural/forestry/fishery occupational group will experience a growth decline.

Table 29 lists the 50 occupations in Illinois which are expected to have the largest number of new jobs. The occupations are listed with the number of annual average new jobs anticipated.

TABLE 29

50 OCCUPATIONS EXPECTED TO HAVE THE LARGEST NUMBER OF NEW JOBS

Occupation	Average Annual New Jobs	Occupation	Average Annual New Jobs
Cashiers	2,148	Food Service	420
Registered Nurses	1,741	Financial Managers	416
Secretaries, ex. Legal & Med	1,554	Stock Clerks, Sales Floor	415
Janitor & Cleaners	1,388	Hairdress, Hairsty, Cosmet	414
Waiters & Waitresses	1,310	Electrical & Electronic Tech	371
Accountants & Auditors	1,266	Maids & Housekeeping Cleaners	369
Retail Salespersons	1,214	1st Line Superv & Mgr Superv	362
Food Prep & Service, Fast Food	1,034	Cooks, Restaurant	350
Teachers, Elementary & Kinderg	955	Physicians & Surgeons	350
Guards	924	Cooks, Shrt Ord & Sp Fast Food	350
Nurse Aides & Orderlies	862	School Bus Drivers	313
Computer Programmers	745	Computer Oper, ex. per Equip	303
Truck Drivers, Heavy	743	Bartenders	296
Food Preparation Workers	698	Licensed Practical Nurses	294
Mechanics, Auto & Motorcycle	665	Hand Packers & Packagers	273
General Office Clerks	647	Travel Agents	272
Lawyers	579	Insurance Sales Workers	254
Gen'l Managers & Top Executives	571	Receptionists & Info. Clerks	252
Computer Systems Analysts, EDP	540	Legal Secretaries	251
Carpenters	535	Teachers, Preschool	247
Bkpg/Acctg/Auditing Clerks	502	Artists & Commercial Artists	246
Maint. Repairers, Gen'l Utility	476	Truck Drivers, Light	241
Securities/Financial Srvs Sales	453	Electricians	232
Dining Rm & Cafeteria Attendants	425	Switchboard Operators	228
Electrical & Electronic Engineers	425	Cooks, Institutional or Cafeteria	227

Source: Illinois Department of Employment Security

The number of annual job openings each year includes both available jobs from employment growth and jobs needing new workers to replace those who left their employment. Table 30 lists the occupations along with the average number of jobs anticipated to be open each year. Many of the job opportunities identified on the table are in occupations having high rates of turnover because of low-pay, low-skill, and minimal education requirements.

Service occupations and white collar occupations dominate the top twenty on the list. A few blue collar occupations are also listed.

TABLE 30

50 OCCUPATIONS EXPECTED TO HAVE THE LARGEST NUMBER OF JOB OPENINGS

Occupation	Average Annual Job Openings	Occupation	Average Annual Job Openings
Janitors & Cleaners	10,391	Typists, inc. Word Processing	1,681
Retail Salespersons	8,398	Gardeners & Groundskeepers	1,617
General Office Clerks	6,990	Hairdress, hairsty, Cosmetologist	1,467
Secretaries, ex Legal & Medical	6,434	Licensed Practical Nurses	1,429
Bkpg/Acctg/Auditing Clerks	5,205	Receptionists & Info Clerks	1,338
Guards	4,796	Cooks, Restaurant	1,326
Cashiers	4,770	Bartenders	1,313
Registered nurses	3,773	Insurance Sales Workers	1,273
Food Prep & Service, Fast Food	3,238	1st Line Supv & Mgr Supv	1,237
Accountants & Auditors	3,165	School Bus Drivers	1,230
Gen'l Managers & Top Executives	3,120	Financial Managers	1,227
Waiters & Waitresses	2,980	Custom Tailors & Sewers	1,217
Food Preparation Workers	2,921	Clergy	1,183
Truck Drivers, Heavy	2,913	Securities/Financial Srvs Sales	1,166
Nurse Aides & Orderlies	2,909	1st Line Supv, Production & Rel.	1,148
Teachers, Elementary & Kinderg	2,772	Hand Packer & Packagers	1,148
Stock Clerks: Sales Floor	2,627	Cooks, Institutional or Cafeteria	1,132
Lawyers	2,533	Traffic/Ship/Rec Clerks	1,121
Maint. Repairers, Gen'l Utility	2,105	Packaging/Filling Mach. Operator	1,113
Maids & Housekeeping Cleaners	2,049	Teachers, Secondary Schools	1,052
Physicians & Surgeons	2,043	Cleaners/Service, Pvt Households	1,030
Carpenters	1,962	Electricians	1,028
Mechanics, Auto & Motorcycle	1,926	Stock Clerks: Strm, Wrhse, Yard	1,026
Misc. Service Workers	1,872	Dentists	987
Food Service & Lodging Mgrs	1,865	Other Nonretail Sales Reps	977

Source: Illinois Department of Employment Security

INSTRUCTIONAL PROGRAMS

ICoVE reviewed vocational education training-level programs by the two-digit CIP (classification of instructional programs) codes. This provided 25 broad occupational clusters for the review. (See Table 31.) Information about the training program participation by the level (i.e., secondary, postsecondary, adult) of instruction generates insight into the greatest supply source from vocational education. For example, nearly all of the health occupations and allied health instruction is at the postsecondary level. The greatest participation of students is in the business and office cluster which enrolls one-third of all the vocational education training-level students.

TABLE 31

PARTICIPATION IN INSTRUCTIONAL TRAINING PROGRAMS, BY LEVEL

CIP Series	Training Level Programs	Secondary	Post-secondary	Adult	Total	% of Enrollment
01	Agriculture	5,952	2,705	241	8,898	3%
03	Forestry & Wildlife	2	77		79	-
04	Environmental Design	78			78	-
06	Business Management	517	13,468		13,985	5%
07	Business & Office	50,193	42,532	751	93,476	33%
08	Marketing & Distribution	17,026	5,826	46	22,898	8%
09	Communications	64	515		579	.2%
10	Communication Technologies	168	366		534	.2%
12	Consumer & Personal Services	2,307	1,483	4	3,794	1%
15	Engineering Technology	16	11,323		11,339	4%
17	Allied Health	2,958	12,594	780	16,332	6%
18	Health Occupations (Nursing, A.A. Degree)		7,913		7,913	3%
20	Home Economics	15,725	10,999	355	27,079	10%
22	Paralegal Secretary		477		477	.2%
23	Technical Writing and Communication		59		59	-
25	Library Assisting		183		183	.1%
31	Recreational Leadership		160		160	.1%
41	Science, Nuclear Power, Chemical Technology	1	222		223	.1%
43	Protective Services		10,069		10,069	3%
44	Public Services	404	1,430		1,834	.6%
46	Construction Trades	7,061	2,157	760	9,978	3%
47	Mechanics and Repairers	13,818	11,859	412	26,089	9%
48	Precision Production	13,996	9,138	102	23,236	8%
49	Transportation, Materials Moving	201	1,111		1,312	.5%
50	Tech. & Industrial Occup.		20		20	-
59	Special Programs	1,492		2,655	4,147	2%
	TOTAL	146,686	131,979	6,106	284,771	100%
	% by Level of Instruction	52%	46%	2%		

ALIGNING ENROLLMENT AND DEMAND FOR OCCUPATIONAL AREAS

Enrollment in vocational education, particularly at the training level for occupational preparation, shows that the vocational education delivery system is aligning itself with labor market needs of the work force. By comparing projections of the occupational areas having the most annual openings, the

TABLE 32

TRAINING ENROLLMENT OF OCCUPATIONAL CLUSTERS
(Rank Order)

CIP Series	Occupational Cluster	Training Level Enrollment[1]	% of V.E. Enrollment
07	Business & Office	93,476	33%
20	Home Economics	27,076	10%
47	Mechanics & Repairers	26,089	9%
48	Precision Production	23,236	8%
08	Marketing & Distribution	22,898	8%
17	Allied Health	16,332	6%
06	Business Management	13,985	5%
15	Engineering Technology	11,339	4%
43	Protective Services	10,069	3%
46	Construction Trades	9,978	3%
01	Agriculture	8,898	3%
18	Health Occupation (Nursing, A.A. Degree)	7,913	3%
59	Special Programs	4,147	2%
12	Consumer & Personal Services	3,794	1%
44	Public Services	1,834	.6%
49	Transportation, Materials, Moving	1,312	.5%
09	Communications	579	.2%
10	Communication Technology	534	.2%
22	Paralegal Secretary	477	.2%
41	Science, Nuclear Power, Chemical Technology	223	.1%
25	Library Assisting	183	.1%
31	Recreational Leadership	160	.1%
03	Forestry & Wildlife	79	-
04	Environmental Design	78	-
23	Technical Writing and Communication	59	-

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[1] Training level enrollments or Grades 11-12 in secondary programs who are enrolled in a program. At the postsecondary, these include enrollments in occupational programs as opposed to vocational skills programs. Adult enrollments are generally a series of courses which comprise a program for preparing participants in an occupational area, as opposed to courses for updating current skills.

most new jobs and other projection information reported on Tables 28-30, pages 69-71, with training-level enrollment shown in rank order (high to low) on Table 32, alignment emerges in many areas.

When comparing the occupational program enrollments (training level) to industry growth, the alignment is also appropriate. Training-level participation is greatest in occupational areas having the greatest need for workers and those growing industries which employ large numbers of workers with certain occupational skills.

The largest enrollment group is in the business and office occupations group. Other business-related occupations such as marketing and distribution and business management are also in vocational education's "top 10 enrollment programs." These occupations account for six of the occupations having the largest number of annual job openings. (See Table 30, page 71.) Combined, these areas account for nearly half (46%) of all training-level enrollment in vocational education.

The home economics area has the second largest enrollment in training-level programs, comprising 10% of the vocational education training-level enrollment (27,076 students). Most of these enrollments are in food preparation-related occupations, followed by child care occupations. Occupations in these areas represent the growing service occupations. Three food service related occupations are found in the top 15 occupations having the largest number of annual job openings.

Mechanics and repairers, precision production, and allied health account for 6-8% of the training-level enrollment (14,000-26,000) each. These areas also occur in the top 15 occupations having the largest number of job openings.

Completions and Enrollments

Approximately 27% (see Table 33, page 75) of all students enrolled in training-level vocational education programs in one year will complete the program and enter the labor market. At first, this appears to be a low rate, but several conditions exist which result in this rate.

Influences on completion rate. Slightly more than 40% of the secondary training-level enrollments complete annually. With most programs being two-year programs, this is a good completion rate. Secondary completion rates should be high because secondary students are not as likely to drop the program and enter employment once they have acquired job skills as are the postsecondary and adult students. These students (over a two-year period) will complete at about an 86% rate.

At the postsecondary level, most occupational programs are two years (associate degree or two-year certificate). Students are simultaneously enrolled in other courses as well. Seventy percent of the community college students are part-time students. Many are working while going to college. Part-time students taking a two-year program may easily result in a four- or five-year time frame for completion. With only 30% enrolled full-time in a two-year program, a slow completion rate should be expected. Many will interrupt enrollment for employment.

Adult programs are generally one or two courses. Completion rate data has little utility because the variations are so widespread and data are so incompatible that conclusions cannot be drawn.

Another factor affecting completion rates, particularly among postsecondary and adult students, is that once sufficient skills have been acquired to get a job, many will exit the program for needed employment to support themselves and their families.

ICoVE did not attempt to verify these influences on completion rates. A thorough follow-up study of non-completers to ascertain other influences and verify the "assumed" influences may have merit. Many non-completers at the postsecondary and adult levels may have acquired sufficient skills for employment prior to completion; however VEDS information is not designed to provide such data.

Value judgements should not be applied to completion data because these are influenced not only by the VEDS, but also the intent of the enrollee which is an unknown factor.

TABLE 33

RATE OF ANNUAL COMPLETIONS, BY LEVEL
(Fiscal Year 1988)

SECONDARY	Total Enrollment	Training-Level Enrollment	Completions	% Completing (Training Level)
High Schools	356,645	111,544	47,652	43%
AVCs	17,902	16,304	7,364	45%
State Agencies	310	212	68	25%
RDS	10,729	3,919	2,085	53%
TOTAL	385,586	131,979	57,169	43%
POSTSECONDARY				
Community Colleges	256,051	137,591	14,372	10%
Technical Insitutes	22,138	3,312	623	18%
State Agencies (Corrections)	5,885	5,783	2,012	35%
TOTAL	284,074	146,686	17,007	12%
ADULT EDUCATION				
High Schools	14,263	284	236	83%
AVCs	4,004	512	305	60%
State Agencies	8,957	5,310	809	15%
TOTAL	27,224	6,106	1,350	22%
GRAND TOTAL	696,884	284,771	75,526	27%

Completions and Training-Level Programs

Vocational education provides a supply of about 75,500 workers to the Illinois labor force each year. Of these, 76% come from secondary programs, 22% from postsecondary, and 2% from adult programs (See Table 34). Most of the new workers are prepared to enter business and office occupations. A large number are prepared to enter marketing and distribution employment, particularly retail sales jobs.

Vocational education supplies a large number of people prepared to fill precision production occupations, home economics occupations (particularly food preparation and child care), and mechanic and repairing jobs. Of these three occupational areas, the majority are supplied by the secondary system. These programs are also among the larger postsecondary occupational program completions. These plus over 1,000 students who complete the postsecondary engineering technology occupational cluster program comprise some of the most highly skilled supply of workers from vocational education.

Tables 35, 36, 37, page 77 and 78, depict the instruction program completers within the different levels of instruction by showing which institutions prepare them.

It is interesting to note that about one-third of all technical institute completers are in the field of protective services. Most of these enrollments represent police training and are already employed, but are receiving additional or upgraded training.

Although the community colleges have large enrollments in the business fields, the total enrollment is not nearly as concentrated in this area as it is at the secondary level. Community colleges have decreased their number of offerings in business-related occupations significantly in the past few years.

TABLE 34

INSTRUCTIONAL PROGRAM COMPLETIONS, BY LEVEL
(FISCAL YEAR 1988)

CIP Series		Secondary	Post-secondary	Adult	Total
01	Agriculture	2,359	443	28	2,830
03	Forestry & Wildlife	2	20		22
04	Environmental Design	17			17
06	Business Management	402	711		1,113
07	Business & Office	20,669	3,391	218	24,278
08	Marketing & Distribution	8,346	761	35	9,142
09	Communications	41	56		97
10	Communication Technologies	38	39		77
12	Consumer & Personal Services	939	373	2	1,314
15	Engineering Technology	14	1,070		1,084
17	Allied Health	1,224	2,837	528	4,589
18	Health Occupations (Nursing, A.A. Degree)		1,654		1,654
20	Home Economics	7,219	1,073	112	8,404
22	Paralegal Secretary		69		69
23	Technical Writing and Communication		12		12
25	Library Assisting		21		21
31	Recreational Leadership		64		64
41	Science, Nuclear Power, Chemical Technology	1	27		28
43	Protective Services	248	897		1,145
44	Public Services		103		103
46	Construction Trades	3,067	386	257	3,710
47	Mechanics and Repairers	6,200	1,938	122	8,260
48	Precision Production	5,813	959	48	6,820

(cont'd)

Table 34 (cont'd)

CIP Series		Secondary	Post-secondary	Adult	Total
049	Transportation, Materials Moving	107	98		205
50	Tech. & Industrial Occup.		5		5
59	Special Programs	463			463
	TOTAL	57,169	17,007	1,350	75,526
	% of Total Completions	76%	22%	2%	

TABLE 35

SECONDARY INSTRUCTIONAL PROGRAM COMPLETERS BY TYPE OF INSTITUTION

CIP Series	Instructional Programs	High Schools	AVC	RDS	St. Agencies (MH, DORS)	Total	% of Total
01	Agriculture	2,156	172	27	4	2,359	4%
03	Forestry & Wildlife	2				2	-
04	Environmental Design	14	3			17	-
06	Business Management	402				402	-
07	Business & Office	18,957	1,203	370	20	20,550	36%
08	Marketing & Distribution	7,612	419	315		8,346	15%
09	Communications	17	24			41	.1%
10	Communication Technologies	17	21			38	.1%
12	Consumer & Personal Services	313	546	80		939	.2%
15	Engineering Technology	13	1			14	-
17	Allied Health	719	596	28		1,343	2%
20	Home Economics	5,575	1,007	636	1	7,219	13%
41	Science, Nuclear Power, Chemical Technology	1				1	-
43	Protective Service	243	5			248	.4%
46	Construction Trades	2,451	600		16	3,067	5%
47	Mechanics and Repairers	3,972	1,784	438	6	6,200	11%
48	Precision Production	4,642	976	191	4	5,813	10%
49	Transportation, Materials Moving	107				107	.2%
59	Special Programs	439	7		17	463	.9%
	TOTAL	47,652	7,364	2,085	68	57,169	98% (.5 less than 1%)
	% of Secondary Vocational Education Completion	83%	13%	4%	.1%		

TABLE 36

POSTSECONDARY INSTRUCTIONAL PROGRAM COMPLETERS BY TYPE OF INSTITUTION, FISCAL YEAR 1988

CIP Series	Instructional Programs	Community Colleges	Technical Institutes	State Agencies Corrections	Total	% of Total
01	Agriculture	380		63	443	3%
03	Forestry & Wildlife	20			20	.1%
06	Business Management	667		44	711	4%
07	Business & Office	3,206	64	121	3,391	20%
08	Marketing & Distribution	761			761	4%
09	Communications	43		13	56	.3%
10	Communication Technologies	39			39	.2%
12	Consumer & Personal Services	295	21	57	373	2%
15	Engineering Technology	978	45	47	1,070	6%
17	Allied Health	2,614	107	116	2,837	17%
18	Health Occupations (Nursing, A.A. Degree)	1,654			1,654	10%
20	Home Economics	815		258	1,073	6%
22	Paralegal Secretary	69			69	.4%
23	Technical Writing and Communication	12			12	.1%
25	Library Assisting	21			21	.1%
31	Recreational Leadership	64			64	.4%
41	Science Nuclear Power, Chemical Technology	27			27	.1%
43	Protective Service	665	219	13	897	5%
44	Public Services	103			103	.6%
46	Construction Trades	96	15	275	386	2%
47	Mechanics and Repairers	1,217	92	629	1,938	11%
48	Precision Production	553	30	376	959	6%
49	Transportation, Materials Moving	68	30		98	.5%
50	Tech. & Industrial Occup.	5			5	-
	TOTAL	14,372	623	2,012	17,007	99%
	% of Postsecondary Completers	85%	4%	12%		

TABLE 37

ADULT INSTRUCTIONAL PROGRAM COMPLETERS BY TYPE OF INSTITUTION, FISCAL YEAR 1988

CIP Series	Instructional Programs	High Schools	AVC	St. Agencies (MH, DORS)	Total	% of Total
01	Agriculture			28	28	2%
07	Business & Office		13	205	218	16%
08	Marketing & Distribution			35	35	3%
12	Consumer & Personal Services			2	2	.1%
17	Allied Health	236	292		528	39%

(cont'd)

Table 37 (cont'd)

CIP Series	Instructional Programs	High Schools	AVC	St. Agencies (MH, DORS)	Total	% of Total
020	Home Economics			112	112	8%
46	Construction Trades			257	257	19%
47	Mechanics and Repairers			122	122	9%
48	Precision Production			48	48	4%
	TOTAL	236	305	809	1,350	100%
	% of Adult Vocational Education Completers	17%	23%	60%		

TABLE 38

COMPOSITE TRAINING-LEVEL ENROLLMENT & COMPLETION INFORMATION BY INSTRUCTIONAL PROGRAM CLUSTERS

CIP	Program Cluster	Training Level Enrollment	Completions
07	Business & Office	93,476	24,278
08	Marketing & Distribution	22,898	9,142
20	Home Economics	27,079	8,404
47	Mechanics and Repairers	26,089	8,260
48	Precision Production	23,236	6,820
17	Allied Health	16,332	4,589
46	Construction Trades	9,978	3,710
01	Agriculture	8,898	2,830
18	Health Occupations (Nursing, A.A. Degree)	7,913	1,654
12	Consumer & Personal Services	3,794	1,314
43	Protective Services	10,069	1,145
06	Business Management	13,985	1,113
15	Engineering Technology	11,339	1,084
59	Special Programs	4,147	463
49	Transportation, Materials Moving	1,312	205
44	Public Services	1,834	103
09	Communications	579	97
10	Communication Technologies	534	77
22	Paralegal Secretary	477	69
31	Recreational Leadership	160	64
41	Science, Nuclear Power, Chemical Technology	223	28
03	Forestry & Wildlife	79	22
25	Library Assisting	183	21
04	Environmental Design	78	17
23	Technical Writing and Communication	59	12
50	Technical and Industrial Occupations	20	5
	TOTAL	284,771	75,526

Vocational education program completers for the various occupational programs (6 digit CIP code) included in each of the occupational clusters (2 digit CIP code) are listed below (Table 39). When compared to information concerning the fastest growing industries, greatest job growth, most new jobs, and other employment projections, the overall alignment of occupational programs matches up fairly well. (See Tables 28, 29, 30, pages 69-71.)

This level of comparison only suggests or indicates an apparent tendency. Many more factors need to be considered and reviewed to determine the extent to which vocational education is actually meeting the needs of the workforce. In general, it appears overall efforts are going in similar directions for most broad occupational areas.

TABLE 39

1988 VOCATIONAL EDUCATION PROGRAM COMPLETERS BY OCCUPATIONAL CLUSTER OF INSTRUCTIONAL PROGRAMS

07 BUSINESS & OFFICE

Instructional Program	Completers	Instructional Program	Completers
Secretarial	9,453	Accounting	5,479
General Office/Clerk	4,145	Data Programming	3,280
Typist	97	Business Computers	511
Typing & Keyboarding	9	Data Entry	196
Information & Word Processing	28	Exec. Secretary/Adm. Support	105
Word Processing	468	Office Supervision & Mgt.	103
Legal Secretary	78	Bookkeeping	34
Court Reporting	35	Bookkeeping & Financial	46
Medical Secretary	156	Micro-Computer Appl.	51
Receptionist	4		
		TOTAL	24,278

08 MARKETING & DISTRIBUTION

Instructional Program	Completers	Instructional Program	Completers
Retail Sales	2,424	Recreation	3
General Marketing & Sales	4,128	Floriculture, Farm, Garden	19
Hospitality & Recreation	193	Vehicle and Petroleum	54
Fashion Merchandising	621	Transportation	9
Jewelry	1	Hardware Marketing	43
Food Marketing	749	Financial Services	358
Freight Transportation	71	Purchases and Investments	21
Business and Personal Services	55	Insurance	1
Industrial Marketing	32	Travel Services	355
Direct Marketing	5		
		TOTAL	9,142

20 HOME ECONOMICS

Instructional Program	Completers	Instructional Program	Completers
Food Production, Mgmt & Services & Restaurant Mgmt	4,586	Teacher Aides	47
		Elderly Care	64
Baking	7	Child Care	2,940
Chef/Cook	64	Institutional Home Mgmt, Support Services	130
Dietetic Aide	51		

(cont'd)

Table 39 Home Economics (cont'd)

Instructional Program	Completers	Instructional Program	Completers
Clothing, Apparel & Textile Mgmt	93	Interior Design/Decorating	85
Home Furnishing/Equipment Production & Service	24	Fashion Fabric Coordination	313
		TOTAL	8,404

47 MECHANICS & REPAIRERS

Instructional Program	Completers	Instructional Program	Completers
Autobody Repair	842	Small Engine Repair	277
Automotive Mechanic	3,764	Motor Repair	7
Diesel & Truck Mechanics	65	Industrial Equip., Maint. & Repair	108
Heavy Equipment Maint. & Repair	14	Industrial Electronics	809
Vehicle & Mobile Equip. Mech. & Rep.	835	Watch & Clock Repairers	6
Aircraft Mechanics	226	Communication Electronics	567
Instrument Repair	5	Major Appliance Repair	36
Heating, Air Cond., Refrig. Mech.	479	Small Appliance Repair	9
Business Machine Repair	45	Mechanics & Repairers	5
Computer Electronics Maint. & Repair	149	Operation, Maintenance & Repair of Audio-visual Equip.	12
		TOTAL	8,260

48 PRECISION PRODUCTION

Instructional Program	Completers	Instructional Program	Completers
Sheet Metal	77	Plastics	56
Tool & Dye	39	Precision Metal Workers	525
Welding, Brazing, Soldering	844	Graphics & Printing	1,159
Jewelry Design, Fabrication & Repair	4	Print Press Operations	23
Commercial Photography	109	Commercial Art/Graphics Design	522
Typesetting, Make-up & Composition	4	Numerical Control	14
Lithography, Photog. & Platemaking	73	Foundry	10
Silk Screen Making & Printing	4	Upholstering	2
Machine Tool Operation/Machine Shop	698	Millwork & Cabinetmaking	153
		Drafting	2,351
		Architectural Drafting	78
		Mechanical Drafting	75
		TOTAL	6,820

17 ALLIED HEALTH

Instructional Program	Completers	Instructional Program	Completers
Practical Nursing	924	Dental Assisting	185
Nursing Assistance	1,276	Dental Hygiene	149
Nursing Home/Convalescent Care	14	Dental Lab Technician	47
Health Care Aide	615	Renal Dialysis Technician	6
Geriatric Aide	14	Diagnostic Med. Snography	6
Computerized Tomography	4	Therapeutic Recreation Technician	36
Mental Health Technician	9	Radiology Tech. Asst. & Aide	209
Central Supply Technician	8		

(cont'd)

Table 39 Allied Health (cont'd)

Instructional Program	Completers	Instructional Program	Completers
Nuclear Medicine Technician	12	Surgical Technician	26
Respiratory Therapy Technician	150	Medical Lab Tech. & Aide	114
Medical Records Technician	85	Pharmacy Asst.	22
Emergency Medical Tech. (Ambulance)	133	Occupational Therapy Asst.	84
		Physical Therapy Asst.	103
EMT, Intermediate & Paramedic	35	Veterinarian Asst.	46
Medical Asst.	102	Radiation Therapy Asst.	11
Alcohol/Drug Abuse Control	73	Allied Health Careers	29
Health Unit Coordinating	15	Food Service Health Supv.	18
Opthamic Medical Asst.	14	Optometric Asst.	8
Exercise Physiology	7		
		TOTAL	4,589

46 CONSTRUCTION TRADES

Instructional Program	Completers	Instructional Program	Completers
Carpentry	344	Electrician	153
Construction & Building Trades	1,904	Pipefitting, Steamfitting, Plumbing	17
Building & Property Maintenance	1,154		
Brick, Block, Stonemasonry	27	Drywall	9
Painting & Decorating	20	Lineworker	80
Construction Code Inspector	2		
		TOTAL	3,710

01 AGRICULTURE

Instructional Program	Completers	Instructional Program	Completers
Landscaping	24	Horticulture	572
Nursery	2	Floriculture	35
Greenhouse	7	Animal Production	33
Turf	5	Horsehandling	1
Parks and Grounds	11	Ag Mechanics	478
Ag Production	929	Ag Business Management	66
Crops	1	Ag supply Marketing	1
Ag Services and Supplies	626		
		TOTAL	2,830

18 HEALTH OCCUPATIONS

Instructional Program	Completers	Instructional Program	Completers
Nursing (Associate Degree)	1,654	TOTAL	1,654

12 CONSUMER & PERSONAL SERVICES

Instructional Program	Completers	Instructional Program	Completers
Cosmetology	1,199	Funeral Services	34
Barbering	52	Laundering	10
Dry Cleaning	19		
		TOTAL	1,314

43 PROTECTIVE SERVICES

Instructional Program	Completers	Instructional Program	Completers
Corrections	10	Private Security Services	16

(cont'd)

Table 39, Protective Services (cont'd)

Instructional Program	Completers	Instructional Program	Completers
Criminal Justice Technology	571	Fire Control & Safety	129
Law Enforcement Administrator	1	Firefighting	29
Social/Public Services	227	Law Enforcement	162
		TOTAL	1,145

06 BUSINESS & MANAGEMENT

Instructional Program	Completers	Instructional Program	Completers
Labor Relations & Personnel Management	7	Real Estate Appraisers	1
Real Estate	50	Technical & Industrial Supervision	71
Small Business Management	431	Hotel and Motel Management	65
Business Adm. & Mgt.	487	Production Management	1
		TOTAL	1,113

15 ENGINEERING TECHNOLOGY

Instructional Program	Completers	Instructional Program	Completers
Civil Technology	19	Petroleum Technology	2
Surveying & Map Technology	17	Mechanical Design Technology	55
Electronic & Electrical Tech.	435	Computer Technicians	17
Industrial Technology	69	Computer Servicing Tech.	73
Laser Electric-Optic Tech.	11	Automated Manufacturing Tech.	24
Biomedical Equipment Tech.	8	Environmental Tech.	9
Electromechanic Tech.	9	Energy Conservation & Use Tech.	19
Instrumentation Tech.	25	Water & Waste Water Tech.	8
Robotics	27	Computer Aided Design	100
Plastic Tech.	10		
Welding Fabrication Tech.	11		
Air Cond., Heating & Refrig.	2	Micro Precision Tech.	9
Coal Mining Tech.	34	Architectural Design & Construction Tech.	20
Quality Control Tech.	37	Automatic Tech.	34
		TOTAL	1,084

49 TRANSPORTATION, MATERIALS MOVING

Instructional Program	Completers	Instructional Program	Completers
Airplane Piloting (Commercial)	44	Material Handling	95
Truck & Bus Driving	54	Mining Equipment Operation	10
Ground Support Operations	2		
		TOTAL	205

44 PUBLIC SERVICES (Bus)

Instructional Program	Completers	Instructional Program	Completers
Social Worker, Social Services	69	Public Utilities Management	1
Public Administration	1	Interpreter Trainer	32
		TOTAL	103

(cont'd)

Table 39 (cont'd)

09 COMMUNICATIONS

Instructional Program	Completers	Instructional Program	Completers
Journalism	10	Radio/TV (Broadcast Journalism)	45
Public Relations	1		
Advertising	41	TOTAL	97

10 COMMUNICATIONS TECHNOLOGY

Instructional Program	Completers	Instructional Program	Completers
Educational Media Tech.	3	Emergency Communications Tech.	13
Radio & TV Production Broadcaster	61	TOTAL	77

22 PARALEGAL

Instructional Program	Completers	Instructional Program	Completers
Legal Assisting	69	TOTAL	69

31 RECREATIONAL LEADERSHIP

Instructional Program	Completers	Instructional Program	Completers
Recreational Leadership	64	TOTAL	64

41 SCIENCE, NUCLEAR & CHEMICAL

Instructional Program	Completers	Instructional Program	Completers
Nuclear Power Plant Operation Technical	8	Chemical Technology	19
		Metallurgy	1
		TOTAL	28

03 FORESTRY & WILDLIFE

Instructional Program	Completers	Instructional Program	Completers
Forestry Production and Processing	19	Wildlife	3
		TOTAL	22

25 BUSINESS (LIBRARY)

Instructional Program	Completers	Instructional Program	Completers
Library Assistant	21	TOTAL	21

04 ENVIRONMENTAL DESIGN

Instructional Program	Completers	Instructional Program	Completers
Interior Design (See CIP 20 also)	17	TOTAL	17

23 TECHNICAL AND INDUSTRIAL

Instructional Program	Completers	Instructional Program	Completers
Technical Reporting & Writing	12	TOTAL	12

(cont'd)

Table 39 (cont'd)

50 TECHNICAL AND INDUSTRIAL OCCUPATIONS

Instructional Program	Completers	Instructional Program	Completers
Theater Technician	5	TOTAL	5

59 SPECIAL PROGRAMS

Instructional Program	Completers	Instructional Program	Completers
Educable Mentally Handicapped In-school	12	Special Ed. In-School	395
		Special Ed. Coop. Ed.	5
Trainable Mentally Handicapped In-school	22	Coop. Work Training (CWT)	8
		Experience-based Education	17
Community Work Shop Experiences	4		
		TOTAL	463

SUPPLY-DEMAND INFORMATION

The "supply-demand" data in this section are taken from the Illinois Occupational Information (OIS) Supply-Demand report prepared by the IOICC. These statewide data are available to community college districts, secondary regional delivery systems, JTPA's service delivery areas, and other substate entities needing supply-demand data, including counties.

The listing which follows includes a variety of information pertaining to various occupational clusters. In addition, each cluster is accompanied by ICoVE comments regarding the extent to which vocational education appears to be attempting to address workplace needs on a statewide level. In its comments, ICoVE does not make determinations, but rather "red flags" areas which may be worthy of note or watching in the future. Specific determinations can not be made for a number of reasons cited below in the section titled "Using the Supply-Demand Information."

As stated by the IOICC in the OIS Supply-Demand Report, job opportunities may be affected by several factors. IOICC states the following factors:

- current occupational employment;
- expansion or reduction in the economy over time;
- replacement of workers leaving the labor force over time because of death, retirement, or other reasons;
- persons changing occupations;
- migration by individuals into or out of the specific geographic area being analyzed;
- technical changes; and
- plant openings and closings.

Using the Supply-Demand Information

The following list should be read carefully before reviewing the supply-demand information in Table 40, page 87. The list includes descriptions of the data as provided by IOICC in its OIS Supply-Demand

Report. In addition, the list describes adaptations ICoVE made to the display of the information for the purpose of this report.

Table 40 is a listing of occupational program clusters, each containing a listing of instructional programs related to that cluster. For each program cluster, "supply" information, as described below is provided. Following the "supply" information is a listing of occupations related to the instructional programs; each includes the number of "annual job openings" projected for the occupation, i.e. "demand," also described in greater detail below. ICoVE's comments as previously discussed follow for each cluster.

The IOICC Report contains a great deal of additional detail. ICoVE consolidated sources and selected the average annual openings as the single "demand" indicator. Information regarding the match of instructional programs with various occupations can be found in the IOICC Report.

- Data are statewide. Substate data provide information more useful in region or district planning.

- Pockets or areas of the state may have high concentrations of supply or demand which would not be reflected in statewide information.

- Additional instructional programs and occupations are listed in the report. ICoVE selected those relevant to vocational education as determined by whether or not vocational education had program completers.

- The Supply as shown in Table 40 reflects primarily these sources. Efforts are made to avoid duplication.

  - Vocational education completers as shown on the VEDS from ISBE (public secondary and public adult)
  - Occupational and vocational skills program completers from the MIS of ICCB (certificate or associate degree)
  - The IBHE HEGIS report general information survey (bachelor and graduate and professional degrees)
  - The proprietary school enrollments from the Illinois Private Vocational/Technical School Survey
  - Job corps training completers who have returned to Illinois
  - Licenses (new) issued by the IL Dept. of Professional Regulation for cosmetology, barbering, and real estate
  - Military persons discharged and returning to Illinois
  - JTPA completion information has not yet been added to the system

- For reporting purposes, ICoVE combined and listed under the heading "vocational education completers" all public secondary, public adult, certificate, and associate degree completers. (Some private two year colleges are included in the certificate and associate degree figures.)

- Under the heading "other program completers" ICoVE combined propriety school completers, bachelor degrees, graduate and professional completers, and Job Corps and military returnees, i.e. non-vocational education completers.

- A "total supply" column combines the two condensed sources.

- The "demand" data average annual openings resulting from employment growth in the occupation and labor force separations. These do not reflect openings caused by occupational turnover or geographic mobility.

- Licenses issued in barbering and cosmetology did not reflect vocational education contribution. ICoVE inserted VEDS data and subtracted the number from the total supply to determine the supply of "other completers."

- Asterisks (*) indicate that only a percent of the supply or demand is shown for that particular cluster. The remaining have been assigned to other clusters and will be given elsewhere in the table. Percentages include 25%, 33%, 50%, 67%.

- AO = all others; EX = except.

- Time periods of the supply data vary. The vocational education supply is FY 87 completers (plus FY 86 private two-year completers). The "other completers" include FY 85 military data, FY 86 Job Corps, FY 86 bachelor and graduate completers, and FY 88 proprietary schools.

↑ = More completers than openings
↓ = Fewer completers than openings
↔ = Number of completers and openings about equal

TABLE 40

AVERAGE ANNUAL PROGRAM COMPLETERS & ANNUAL OPENINGS

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
AGRICULTURAL & FOOD PRODUCTION			
Ag. Business & Management	60	0	60
Agricultural Business	0	76	76
Agricultural Production	1,066	0	1,066
Animal Production	22	0	22
Crop Production	2	0	2
Ag. Products & Processing	44	0	44
Food Products	0	9	9
Ag. Services & Supplies	654	0	654
Ag. Supplies Marketing	2	0	2
Pet Grooming	0	137	137
Horseshoeing	0	40	40
TOTAL	1,850	262	2,112

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Bio. & Ag. Tech. & Tech.*	12	Farm Workers	854
Farmers	7,370	Animal Caretakers, Ex. Farm*	48
Farm Managers	302	Farm Equipment Operators	1
First Line Superv., Ag., Etc.	1		
		TOTAL	8,588

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
(cont'd)			

↓COMMENTS: Most of supply is from vocational education. Supply is demand-related. Some specific training does not relate to demand. Employment is expected to decline. Annual decline is 630 jobs per year.

AGRICULTURAL MECHANICS

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Agricultural Mechanics	550	9	559

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Farm Equipment Mechanics	29

↑COMMENTS: Placement of program completers should be reviewed. Supply is nearly 20 times the demand.

LANDSCAPING & HORTICULTURE

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Horticulture	500	2	502
Arboriculture	1	0	1
Ornamental Horticulture*	13	0	13
Greenhouse Op. & Management	16	30	46
Landscaping	53	0	53
Nursery Operation & Management	1	0	1
Turf Management	5	15	20
Parks and Grounds Management	6	0	6
TOTAL	595	47	642

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Landscape Architects	22	Nursery Workers	84
Gardeners & Groundskeepers	1,617		
		TOTAL	1,723

↓COMMENTS: Programs appear to be preparing for related occupations, but may be more highly skilled in specific areas than needed.

FORESTRY PRODUCTION & PROCESS

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Forestry Prod. & Processing	9	0	9

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Fallers & Buckers	1	Ad. Timber Cut. & Logging Wrkrs.	45
Log Handling Equip. Operators	1	Forest & Conservation Workers	16
Logging Tractor Operators	5	Log Graders & Scalers	1
		TOTAL	69

↓COMMENTS: Supply is below demand. Demand is geographic-specific.

COMPUTER SCIENCE

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Management Information Systems	216	63	279
Business Data Processing	99	242	341
Business Data Programming	3,471	704	4,175
Business Systems Analysis	0	57	57
Information Processing	31	221	252

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
(cont'd)			
Business Data Processing, Other	0	15	15
Computer & Information Science	13	2,201	2,214
Data Processing	0	26	26
Information Sciences & Systems	171	528	699
Applied Mathematics*	0	39	39
TOTAL	4,001	4,096	8,097

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Computer Systems Analysts, EDP	693	Computer Programmer Aides	49
Computer Programmers	872	TOTAL	1,614

↑COMMENTS: Follow-up of completers should be done to determine placement and related placement. The supply exceeds the demand. A large supply from other sources is available.

COMPUTER OPERATIONS

Business Computer & Console Op.	745	133	878

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Computer Op., Ex. Per. Eq. Op.	463

↑COMMENTS: Supply exceeds demand. Careful review of programs and placement rates should be conducted.

ACCOUNTING

Accounting	16	2,759	2,775
Taxation	0	24	24
TOTAL	16	2,783	2,799

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Tax Preparers	73	Budget Analysts	86
Accountants & Auditors	3,165	Tax Exam., Coll., & Rev. Agts.	52
		TOTAL	3,376

↓COMMENTS: Most of supply is from other sources. Most are degree completers.

BOOKKEEPING & ACCOUNTING

Acctg, Bookkeeping & Rel. Progs.	0	13	13
Acctg, Bookkeeping & Rel Progs.	5,539	132	5,671
Accounting & Computing	231	19	250
Bookkeeping	46	0	46
Mach. Bill, Bookkeeping & Comput.	0	59	59
Accounting & Bookkeeping, Other	1	0	1
TOTAL	5,817	223	6,040

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
(cont'd)			

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Bookkeep., Acct., & Aud. Clerk	5,205	Billing, Cost, & Rate Clerks	435
Payroll & Timekeeping Clerks	229	Bill., Post., & Calc. Mach. Op	347
		TOTAL	6,216

↔COMMENTS: Supply is approaching demand. Placement and related-placement should be reviewed. Program content should be monitored carefully.

OFFICE SUPERVISION

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Office Supervision & Management	75	130	205
Medical Office Management	0	38	38
TOTAL	75	168	243

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Admin. Services Managers	404	First Line Superv. & Mgr. Su.	1,237
		TOTAL	1,641

↓COMMENTS: Some lower skill office-related programs currently nearing the demand level may be appropriately adapted to raise the skill level to meet these demands. Most of the other supply is from degree program.

PERSONNEL & LABOR RELATIONS

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Human Resources Development	0	70	70
Labor/Industrial Relations	1	90	91
Personnel Management	9	163	172
TOTAL	10	323	333

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Pers., Tr., & La. Rel. Mgrs.	225	Pers., Tr., & Lab. Rel. Spec.	598
		TOTAL	823

↓COMMENTS: Most of other supply is from degree programs. The need far exceeds the supply.

SECRETARIAL

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Secretarial & Related Programs	0	3	3
Secretarial & Related Programs	83	121	204
Exec. Secretarial/Admin. Asst.	83	153	236
Legal Secretarial	92	80	172
Medical Secretarial	118	89	207
Secretarial	10,472	131	10,603
Medical Assistant	8	0	8
TOTAL	10,856	577	11,433

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers

(cont'd)

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Legal Secretaries	699	Secretaries, Exc. Legal & Med.	6,434
Medical Secretaries	394		
		TOTAL	7,497

†COMMENTS: Separations present most of the secretarial need, although growth is substantial. The supply of legal and medical is less than the demand. Placement of secretarial programs should be reviewed, also entry wages. Some programs may need to offer additional skills to enhance marketability.

STENOGRAPHY

Court Reporting	57	8	65
Stenographic	3	67	70
TOTAL	60	75	135

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Stenographers	18

†COMMENTS: The supply exceeds the demand. Employment is declining rapidly. Programs may need to be reviewed for revisions.

TYPING & DATA ENTRY

Business Data Entry	0	22	22
Business Data Entry Equip Op	203	319	522
Word Processing	575	0	575
Typing & General Office	72		72
Typing, General Office & Related	0	1,015	1,015
Clerk-Typist	147	236	383
Typing/Keyboarding	2	0	2
Word Processing	0	1,103	1,103
TOTAL	999	2,695	3,694

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Proofreaders & Copy Markers	175	Data Entry Keyers, Ex. Compos.	75
Typists, Inc. Word Processing	1,681	Data Keyers, Composing	56
		TOTAL	1,987

†COMMENTS: The occupational programs should be reviewed, particularly the placement rates. Related employment of graduates should be reviewed to determine alternative options. The number employed in the area is decreasing annually. Most other completers are from proprietary schools.

CLERICAL

Typing & General Office	0	72	72
Correspondence Clerk	5	0	5
General Office Clerk	3,951	261	4,212
Health Unit Coordinating	7	0	7
TOTAL	3,963	333	4,296

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers

(cont'd)

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Adjustment Clerks	192	Procurement Clerks	81
Insurance Examing Clerks	20	Statistical Clerks	85
Insurance Claims Clerks	128	Inter. Clks., Ex. Per. & Wel.	456
Ins. Policy Processing Clerks	460	General Office Clerks	6,990
Investigators, Clerical	2	Duplicating Machine Operators	57
Court Clerks	89	Mail Mach. Op., Prep. & Hand.	141
Municipal Clerks	47	AO Office Machine Operators	231
License Clerks	28	Mail Clerks, Ex. Mail Mach. Op.	287
Advertising Clerks	65	Prod., Plan., & Exped. Clerks	267
Real Estate Clerks	88	Weighers, Meas., Check., & Rel	84
Correspondence Clerks	72	Traffic, Ship., & Rec. Clerks	1,121
File Clerks	439	AO Mat. Rec., Sched., & Rel.	366
Order Clerks, Mat., Mer. & Ser	810	AO Clerical & Adm. Support Wkr.	2,494
		TOTAL	15,100

↓COMMENTS: The primary supply is general office clerks. Specific clerk position demands are not being filled. Most need is caused from separation.

RECEPTION & COMMUNICATION SYSTEMS

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Reception & Communication System Op.	3	545	548

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Radio Operators	6	Cenral Office Operators	144
Hotel Desk Clerks	236	Telegraph & Teletype Operators	-1
Receptionists & Info. Clerks	1,338	AO Communications Equip. Oper.	0
Switchboard Operators	962	Dispatch., Polic, Fire, Amb	116
Directory Assist. Operators	122	Dispatch., Ex. Pol., Fi., Am.	343
		TOTAL	3,266

↓COMMENTS: Most employment demand is caused by separations indicating a high turnover rate. The demand is considerably greater than the supply.

FINANCIAL SERVICES MARKETING

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Banking & Relat. Financial Prog.	36	0	36
Financial Services Marketing	455	2,201	2,656
TOTAL	491	2,201	2,692

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Tellers	589	Credit Checkers	141
New Accounts Clerks	259	Loan & Credit Clerks	392
Transit Clerks	43	Statement Clerks	146
Loan Interviewers	54	Brokerage Clerks	340
Credit Authorizers	43	Bill & Account Collectors	297
		TOTAL	2,304

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
(cont'd)			

**COMMENTS: Most supply comes from proprietary schools. The vocational education completers are from community colleges. The related industry is growing in Illinois.

INSURANCE MARKETING			
Insurance & Risk Management	0	12	12
Insurance Marketing	7	4,777	4,791
TOTAL	7	4,789	4,803

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Underwriters	229	Insurance Sales Workers	1,273
Special Agents, Insurance	54	Ins. Adj., Exam., & Investig.	247
Claims Exam., Prop. & Cas. Ins.	122	Ins. Appraisers, Auto Damage	37
		TOTAL	1,962

†COMMENTS: The non-public training programs provide most of the training. Education's supply is all bachelor's level.

MARKETING & ADVERTISING			
Marketing Management	0	1,859	1,859
Purchasing & Inventory Control	22	2	24
Advertising	47	205	252
Marketing Communications	0	14	14
TOTAL	69	2,080	2,149

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Purchasing Managers	135	Pur. Agt. & Buyers, Farm	11
Marketing, Adv., & P.R. Mgrs.*	326	Pur. Agts., Ex. Wh/Ret/Farm	456
Wh. & Ret. Buyers, Ex. Farm	569	First Line Superv. & Mgr./Supv.	825
		TOTAL	2,322

**COMMENTS: Most of the supply is degree-level. The demands are nearly being met.

SALES			
Apparel & Accessories Mkt.	483	0	483
Fashion Merchandising	184	11	195
Fashion Modeling	0	1,932	1,932
Jewelry Marketing	1	0	1
Business & Personal Serv. Mkt.	92	0	92
Florist, Farm & Garden Supp. Mkt.	23	0	23
Food Marketing	650	0	650
Industrial Sales	61	0	61
Retailing	2,255	130	2,385
Sales	3,902	14	3,916
Home & Ofice Products Mkt.	68	0	68
Hardware Marketing	46	0	46
Vehicles & Petrleum Marketing	65	0	65

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
(cont'd)			
Marketing Co-op Education	4	0	4
Home Ec, Fashion Merchandising	0	13	13
Fashion/Fabric Coordination	276	0	276
Home Furnishings & Equip. Mgt.	32	0	32
TOTAL	8,142	2,100	10,242

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Merch. Displayers & Window Dre.	44	Stock Clerks, Sales Floor	2,627
Sales Agents, Sel. Bus. Serv.	440	Cashiers	4,770
Sales Agents, Advertising	314	Vendors, Solicitors, & Rel. Wk	170
AO Sales Rep. & Salesper., Ser	265	Demonst., Promoters, & Models	76
Sales Rep., Sci. Prod. & Serv.	527	AO Sales & Related Workers *	11,541
Other Sales Reps., Ex. Retail	977	Custmer Serv. Representatives	219
Salespersons, Retail	8,398	Marking Clerks	1
Salespersons, Parts	34	Stock Clerks, Strm., Ware., Yd.	1,026
Counter & Rental Clerks	497	Order Fillers, WH. & Ret. Sale	337
		TOTAL	32,263

↓COMMENTS: The annual openings from separations are five times greater than those from growth. Some occupations are declining in overall employment. Many jobs are low-pay, entry-level positions. Occupational programs do not match with occupational employment, although related employment may be available for completers.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
TRAVEL SERVICES			
Transportation & Travel Mkt*	39	0	39
Tourism	16	0	16
Travel Services Marketing	463	1,331	1,794
Travel	56	0	56
Air Transportation, General*	1	83	84
TOTAL	575	1,414	1,989

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Travel Agents	611	Reserv. & Trans. Ticket Agts.	169
Travel Clerks	7	Transportation Agents*	24
		TOTAL	811

↑COMMENTS: Non-public programs provide a large portion of the completers. Placement rates and specific geographic areas should be reviewed to determine the success of completers in finding employment.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
TRANSPORTATION SERVICES			
Transportation & Travel Mkt.*	39	0	39
Freight Transportation Mkt.	65	0	65
Air Transportation, General	2	165	167
TOTAL	106	165	271

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers

(cont'd)

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Transportation Agents*	24

↑COMMENTS: A careful review of employment obtained by program completers should occur. The supply is substantially greater than the demand.

BUSINESS & MANAGEMENT

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Business & Management	233	1,384	1,617
Business Admin. & Management	622	5,685	6,307
Business Admin. & Mgt., Other	0	3	3
Business Economics	0	195	195
International Business Mgt.	0	79	79
Information & Decision Science*	0	27	27
Management Science, Other	54	38	92
Mkt. Mgt. & Research, Other	0	16	16
Organizational Behavior*	0	22	22
Small Business Mgt. & Ownership	412	0	412
Policy & Environment	0	24	24
Business & Management, Other	0	4	4
Arts Management	0	14	14
TOTAL	1,321	7,491	8,812

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Prop. & Real Est. Mgrs. & Ad.	161	AO Managers & Administrators	11,191
Construction Managers	361	Management Analysts	232
Mining & Rel. Managers	22	AO Management Support Workers	611
General Managers & Top Execs.	3,120		
		TOTAL	15,698

↓COMMENTS: Most of the supply is from bachelor's and graduate programs. The occupational programs are unable to provide the growing demand.

PRODUCTION & INDUSTRIAL MANAGEMENT

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Product Management	0	25	25
Trade & Industrial Supv. & Mgt.*	23	12	35
TOTAL	23	37	60

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Industrial Prod. Managers	215	First Line Superv., Prod. & Re.	1,148
		TOTAL	1,363

↓COMMENTS: Programs preparing workers in occupational areas related to this cluster are minimal. The potential for new programs should be explored. The other supply is from degree programs and the military.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
HOTEL & RESTAURANT MANAGEMENT			
Hotel/Motel Management	42	459	501
Restaurant Management	0	18	18
Food Service	106	43	149
TOTAL	148	520	668

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Food Serv. & Lodging Managers	1,865

↓COMMENTS: Proprietary schools provide most of the training. Separations account for most of the annual jobs available.

LEGAL ASSISTING			
Legal Assisting	109	77	186
Legal Administration	0	13	13
Legal Studies	0	23	23
TOTAL	109	113	222

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Paralegal Personnel	118	Title Examiners & Abstract.	35
Title Searchers	32	AO Legal Assistants	11
		TOTAL	196

↔COMMENTS: The supply of workers is slightly greater than the demand. Placement of graduates should be reviewed.

LAW ENFORCEMENT & CORRECTIONS			
Corrections	10	69	79
Criminal Justice Technology	493	7	500
Law Enforcement	16	4,329	4,345
Law Enforcement Administration	30	0	30
Security Services	11	4,780	4,791
Protective Services, Other	0	63	63
TOTAL	560	9,248	9,808

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Police & Detective Superv.	159	Sheriffs, Dep. Sh., & US Mar.	112
Police Detectives & Invest.	63	Detect. & Invest., Ex. Pub.	204
Police Patrol Officers	369	Fish & Game Wardens	21
Correction Officers & Jailers	302	Guards	4,796
Parking Enforcement Officers	37	AO Protective Service Workers	201
Bailiffs	28		
		TOTAL	6,292

↑COMMENTS: Proprietary and non-collegiate schools provide more workers than the annual average openings. Placement should be reviewed, as well as the alignment of programs and employment clusters.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
FIRE CONTROL & SAFETY			
Fire Control & Safety Tech.	73	0	73
Fire Protection Administration	1	29	30
Firefighting	31	34	65
TOTAL	105	63	168

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Fire Fighting & Prev. Super.	88	Fire Inspectors	10
Fire Fighters	300	TOTAL	398

↓COMMENTS: A deficient supply of program completers.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
SOCIAL WORK/HUMAN SERVICES			
Alcohol/Drug Abuse Specialty	50	14	64
Mental Health/Human Serv. Asst.	20	0	20
Mental Health/Humn Serv. Tech.	12	0	12
Rehabilitation Counseling	0	21	21
Mental Health/Human Services	0	48	48
Recreational Therapy Assisting	30	0	30
Rehabilitation Services, Other	0	8	8
Individual & Family Development	0	68	68
Family Relations	0	64	64
Gerontological Services	0	14	14
Elder Care	22	0	22
Child Care/Elder Care Aide	17	0	17
Criminal Justice Counseling	0	1	1
Social/Public Service Occs	171	0	171
Social Work, General	561	451	1,012
Medical Social Work	0	19	19
Interpreter Training	20	0	20
Social Work, Other	0	2	2
TOTAL	903	710	1,613

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Social Workers, Med. & Psych.	303	Welfare Elig. Wkrs. & Interv.	196
Social Wrokers, Ex. Med. & PS	605	Psychiatric Aides*	13
Social Service Technicians	138	Social Welfare Service Aides	390
Recreation Workers*	40	TOTAL	1,685

↔COMMENTS: The occupational cluster requires some high educational levels. The supply and demand are nearly equal.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
PRESCHOOL EDUCATION			
Pre-Elementary Education	15	180	195

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Teachers, preschool	608

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
(cont'd)			

↓COMMENTS: An undersupply. May be an area that postsecondary child care programs could be modified to provide.

LIBRARY ASSISTING

Library Assisting	27	0	27

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Technical Assistants, Library	121	Library Asst. & Bookmob. Drivers	206
		TOTAL	327

↓COMMENTS: An undersupply of workers being prepared.

EDUCATIONAL ASSISTING

Teacher Aide (School age)	36	0	36

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Teacher Aides & Educ. Assts.	743

↓COMMENTS: An undersupply of workers being prepared.

CHILD CARE SERVICES

Child Devel., Care & Guidance	0	35	35
Child Care Services	0	5	5
Child Care & Guid. Mgt. & Serv.	2,753	30	2,783
Child Care Aide/Assisting	398	0	398
Child Care/Elder Care Aide*	17	0	17
TOTAL	3,168	70	3,238

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Child Care Workers, Pvt. Hshld	911	Child Care Workers	800
		TOTAL	1,711

↑COMMENTS: Most of the supply is from secondary programs. The supply exceeds the demand. Placement should be reviewed. Programs should be monitored and reviewed to determine if modification could be made to supply related occupational demands.

RECREATIONAL SERVICES

Recreational Enterprises Mgt.	1	13	14
Hospitality & Recreation Mkt.	63	82	145
Mkt. of Recreational Services	1	0	1
Parks & Recreation, General	0	122	122
Outdoor Recreation	18	0	18

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
(cont'd)			
Parks & Recreation Management	0	149	149
TOTAL	83	366	449

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Recreation Workers*	224	Guides	108
Amusement & Recreation Attend.	347		
		TOTAL	679

↓COMMENTS: Degree programs provide the greatest supply of workers.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
PHOTOGRAPHY			
Journalism Photography	0	4	4
Photographic Technology	14	0	14
Commercial Photography	117	0	117
Photographic Lab & Darkroom	0	12	12
Photography	0	1,768	1,768
TOTAL	131	1,784	1,915

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Photographers	268	Phtog. Proc. Wkrs., Precision	33
		TOTAL	301

↑COMMENTS: Proprietary schools provide the greatest supply. Over six times more are trained than are in demand. Programs may be serving personal interests. Placements should be reviewed.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
RADIO & TV PRODUCTION			
Radio & TV Prod. & Broadcasting	56	29	85
Video Technology	0	24	24
TOTAL	56	53	109

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Camera Operators, TV & Movies	13	Broadcast Technicians	43
		TOTAL	56

↑COMMENTS: Supply is greater than demand. Review placement.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
JOURNALISM & WRITING			
Journalism	6	932	938
English*	0	246	246
Composition	0	2	2
Creative Writing	0	16	16
Technical & Business Writing	9	0	9
TOTAL	15	1,196	1,211

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers

(cont'd)

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Writers & Editors	728	Reporter & Correspndents	199
Technical Writers	62		
		TOTAL	989

↑COMMENTS: The technical writer supply is not being met. Most other occupations require degrees.

BROADCAST JOURNALISM

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Radio/TV News Broadcasting	0	41	41
Radio/TV (Broadcast Journalism)	28	259	287
TOTAL	28	300	328

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Broadcast News Analysts	8	Announcers, Radio & TV	27
		TOTAL	35

↑COMMENTS: The annual growth rate is declining. The large oversupply is from the bachelor's and graduate program.

TEXTILE & APPAREL CONSTRUCTION

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Textiles & Clothing, General	0	166	166
Clothing, Apparel & Text Mgt	65	4	69
Comm. Garment & Appar. Construct.	0	20	20
Custom Tailoring & Alteration	0	27	27
TOTAL	65	217	282

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Menders, Garments & Linens	19	Sewing Mach. Oper., Garment	249
Patternmakers & Layout Workers	8	Sewing Mach. Oper., Non-Garment	214
Custom Tailors & Sewers	1,217	Sewers, Hand	29
Tex. Mach. Oper. & Tend., Wind.	33		
		TOTAL	1,769

↓COMMENTS: Most of the supply is from proprietary schools. The supply form vocational education is secondary. The occuaptional employment is declining.

DRY CLEANING & LAUNDERING

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Drycleaning & Laundering Serv.	0	20	20
Dry Cleaning	7	0	7
Laundering	14	6	20
TOTAL	21	26	47

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
(cont'd)			

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Spotters, Dry Cleaning	45	Laund. & Drycl. Mach. Oper.	569
Pressers, Delicate Fabrics	93	Press. Mach. Op. & Tend., Text.	222
Dyers, Precision	4	Pressers, Hand	17
		TOTAL	950

↓COMMENTS: A significant shortage of completers. Generally a low-skill occupation.

CUSTODIAL SERVICE & BUILDING MAINTENANCE

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Custodial Services	0	71	71
Homemaker's Aide	0	50	50
Bldg. & Property Maintenance	824	67	891
TOTAL	824	188	1,012

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Housekeepers, Institutional	411	Janitor & Cleaners	10,391
Housekeeper & Butlers	203	Pest Controller & Assistants	48
Cleaners & Serv., Pvt. Hshld.	1,030	AO Clean. & Bldg. Serv. Wkrs.	391
Maids & Housekeep. Cleaners	2,049	Maint. Repairers, Gen. Utility	2,105
		TOTAL	16,628

↓COMMENTS: A significant supply shortage. Most demand is separation. A service sector with low skill and high turnover, but a projected employment growth.

BARBERING & COSMETOLOGY

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Barbering Licens	52	496	548
Cosmetology Lics	1,199	5,500	6,699
Electrolysis	0	21	21
Make-up Artistry	0	278	278
TOTAL	1,251	6,295	7,546

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Barbers	85	Hairdress., Hairsty., Costmet.	1,467
Manicurists	42	Shampooers	42
		TOTAL	1,636

↑COMMENTS: Appears to be an oversupply. Completers represent annual licenses issued. Placement rates should be reviewed.

FUNERAL SERVICES

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Funeral Services	28	49	77

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Funeral Dir. & Morticians	109	Funeral Attendants	53

(cont'd)

Program		Voc. Ed. Completers	Other Completers	Total Supply of Completers
(cont'd)				
Embalmers	8			
		TOTAL		170

↓COMMENTS: An undersupply of completers, but a small industry.

FOOD SERVICES

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Waiter/Waitress & Relat Serv.	1	1	2
Bartending	0	1,046	1,046
Food Prod., Mgt. & Services	2,098	1	2,099
TOTAL	2,099	1,048	3,147

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Hosts & Hostesses, Rest./Loung	382	Counter Att., Lunchrm., Cafe	35
Bartenders	1,313	Food Preparation Worker*	1,461
Waiters & Waitresses	2,980	Food Prep. & Ser. Wk., Fast Fd.	3,238
Food Servers, outside	83	AO Food Service Workers	669
Din. Rm. & Cafeteria Attendant	834		
		TOTAL	10,995

↓COMMENTS: Entry-level employment in most occupations. A large employment industry with rapid growth, as well as a large turnover rate.

FOOD PREPARATION

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Food Processing Technology	0	64	64
Food Production & Servies	0	29	29
Food Prod, Mgt. & Services*	2,098	1	2,099
Baking	5	362	367
Chef/Cook	143	432	575
TOTAL	2,246	888	3,134

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Cooks, Private Household	82	Food Preparation Workers*	1,461
Bakers, Bread & Pastry	270	Butchers, & Meatcutters	504
Cook, Restaurant	1,326	Bakers, Manufacturing	162
Cooks, Instit. or Cafeteria	1,132	Food Batchmakers	94
Cooks, Short Order & Sp. Fast	713		
		TOTAL	5,744

↓COMMENTS: Shortage of workers. Most of the supply is secondary. Large employment in the occupation. Generally a low-wage occupation.

DIETETIC ASSISTING

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Food Serv. Health Supervision	23	0	23
Dietetic Aide/Assisting	25	0	25
TOTAL	48	0	48

(cont'd)

Program		Voc. Ed. Completers	Other Completers	Total Supply of Completers
(cont'd)				
RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS				
Dietetic Technicians	35			
↔COMMENTS: Placements should be reviewed. The level of training may not match the level of training in demand.				
DENTAL ASSISTING				
Dental Assisting		256	224	480
RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS				
Dental Assistants	251			
↑COMMENTS: Placements should be reviewed. An excess of supply as compared to the demand for workers.				
DENTAL HYGIENE				
Dental Hygiene		115	25	140
RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS				
Dental Hygienists	101			
↑COMMENTS: Supply is greater than demand. Placement should be reviewed.				
DENTAL LABORATORY TECHNOLOGY				
Dental Laboratory Technology		57	6	63
RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS				
Dental Lab Technicians, Prec.	142			
↓COMMENTS: Demand exceeds supply.				
EKG TECHNOLOGY				
Electrocardiograph Technology		1	169	170
Exercise Physiology		2	10	12
TOTAL		3	179	182
RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS				
EKG Technic. & Technol.	41			
↑COMMENTS: Supply exceeds demand considerably. Supply is from proprietary schools.				

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
EMERGENCY MEDICAL TECHNOLOGY			
Emergency Med. Tech., Ambulance	116	155	271
Emergency Med. Tech., Paramedic	2	23	25
TOTAL	118	178	296

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Emergency Medical Technicians	63	Ambulance Drivers & Attendants	52
		TOTAL	115

†COMMENTS: An oversupply of completers. Placement should be reviewed.

RADIOLOGIC TECHNOLOGY			
Nuclear Medical Technology	10	4	14
Radiologic (Medical) Tech	239	179	418
Radiation Therapy Assisting	8	0	8
Allied Health, Other*	10	26	36
TOTAL	267	209	476

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Nuclear Medicine -	12	Radiologic Technicians	54
Radiologic Technologists	36		
		TOTAL	102

†COMMENTS: Both public and proprietary prepare more workers than are in demand. Placement should be reviewed.

RESPIRATORY THERAPY TECHOLOGY			
Respiratory Therapy Technology	134	0	134
Respiratory Therapy	61	6	67
Allied Health, Other*	10	26	36
TOTAL	205	32	237

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Respiratory Therpists	55

†COMMENTS: Very little activity in occupational employment. The supply is over four times greater than the demand. Placement should be reviewed.

SURGICAL TECHNOLOGY			
Surgical Technology	29	33	62

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Surgical Technicians	51

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers

(cont'd)

**COMMENTS: Small employment field with little activity expected. An oversupply of completers.

MEDICAL LABORATORY TECHNOLOGY

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Blood Bank Technology	0	3	3
Clinical Laboratory Aide	30	0	30
Cytotechnology	0	3	3
Hematology Technology	0	55	55
Histologic Technology	0	6	6
Medical Laboratory Technology	122	27	149
Medical Technology	0	50	50
Allied Health, Other*	10	26	36
Medical Laboratory	0	196	196
TOTAL	162	366	528

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Med. & Clin. Lab Technology	108	Med. & Clin. Lab Technicians	78
		TOTAL	186

†COMMENTS: The demand much lower than the supply. About half of the other supply represents degree programs. Placement should be reviewed. The specificity of occupational programs suggests localized needs.

MEDICAL ASSISTING

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Medical Assisting	241	1,087	1,328

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Medical Assistants	233

†COMMENTS: The supply, mostly from proprietary training, is nearly six times greater than the demand. Placement should be reviewed.

HEALTH CARE ADMINISTRATION

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Nursing Home/Convalesent Care	5	0	5
Mgt. of Rehabilitation Service	0	30	30
Health Services Administration	0	466	466
TOTAL	5	496	501

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Medicine & Health Serv. Mgrs.	265

†COMMENTS: Most of supply and demand require degrees. Nearly all of the supply is bachelor's and graduate degree.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
MEDICAL RECORDS TECHNOLOGY			
Medical Records Technology	93	49	142
Medical Records Administration	0	52	52
TOTAL	93	101	194

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Medical Records Techn.	81

↑COMMENTS: The supply is two times greater than the demand. Placement should be reviewed.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
PHARMACY ASSISTING			
Pharmacy Assisting	11	11	22

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Pharmacy Assistants	93

↓COMMENTS: The demand is greater than the supply. A relatively small employment area.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
VETERINARY ASSISTING			
Veterinarian Aide	23	0	23
Veterinarian Assisting	0	6	6
TOTAL	23	6	29

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Animal Caretakers, Ex. Farm*	40

↔COMMENTS: Little employment growth or employment change expected.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
REGISTERED NURSING			
Nursing, General	1,534	2,676	4,210
Anesthetist (Nursing)	0	9	9
Medical Surgical	0	10	10
Psychiatric/Mental Health	0	8	8
Public Health (Nursing)	0	5	5
Nursing-Liberal Arts	0	7	7
Rehabilitation Nursing	0	6	6
TOTAL	1,534	2,721	4,255

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Registered Nurses	3,773

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
(cont'd)			

↑COMMENTS: Nearly ½ of the supply are degree or graduate completers. Placement of completers should be reviewed.

LICENSED PRACTICAL NURSING

Practical Nursing	912	83	995

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Licensed Practical Nurses	1,429

↓COMMENTS: Approximately 70% of the need is being filled. Annual openings come from separation.

NURSING ASSISTING

Home Health Aide	3	185	188
Health Care Aide	693	0	693
Nursing Assisting	0	67	67
Geriatric Aide	49	0	49
Nursing Assisting	1,309	375	1,684
TOTAL	2,054	627	2,681

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Nursing Aides & Orderlies	2,909	Home Health Aides	203
Psychiatric Aides*	13		
		TOTAL	3,125

↓COMMENTS: A high annual turnover from a low-skill, low-wage occupation creates a large annual demand.

OPTOMETRIC/OPTHALMIC TECH

Opthalmic Dispensing	0	2	2
Ophthalmic Medical Assisting	14	0	14
Optometric Assisting	15	4	19
TOTAL	29	6	35

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Opticians, Dispensing & Measur	95	Optical Goods Workers, Prec.	13
		TOTAL	108

↓COMMENTS: A small employment field with a small separation rate and limited growth.

ALL OTHER HEALTH TECHNOLOGY

Diagnostic & Treatment Serv.	0	1	1
Cardiovascular Technology	0	110	110

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
(cont'd)			
Dialysis Technology	6	39	45
Diagnostic Medical Sonography	11	22	33
Computerized Tomography	3	0	3
Orthotics/Prosthetics	0	1	1
Orthopedic Assisting	0	2	2
Respiratory Therapy Assisting	0	9	9
TOTAL	20	184	204

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Health Pract., Techn., & Rel.*	4	AO Health Prof. & Paraprof. Wk.*	177
Medical Appliance Makers	4		
		TOTAL	185

↔COMMENTS: Programs appear to offer more specific preparation than demand data reflect. May indicate geographic need. Placement should be monitored.

OCCUPATIONAL THERAPY ASSISTING

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Occupational Therapy Assisting	44	0	44
Occupational Therapy Aide	20	0	20
TOTAL	64	0	64

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Occupational Therapy Assistant	28

↑COMMENTS: The supply is greater than the demand. The employment in the field is small. Programs should monitor their placement carefully.

PHYSICAL THERAPY ASSISTING

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Phyical Therapy Aide	5	3	8
Physical Therapy Assisting	117	0	117
TOTAL	122	3	125

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Phys. & Correct. Therapy Assts.	110

↔COMMENTS: Monitor placement. Supply is slightly greater than demand.

TRADE & INDUSTRIAL SUPERVISION

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Trade & Industrial Supv. & Mgt.*	23	12	35

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

1st Line Superv., Mech. & Repair	276	1st Line Superv., Const. & Repair	209
		TOTAL	485

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
(cont'd)			

↓COMMENTS: Supply is less than 10% of the demand.

AUDIO/VISUAL TECHNOLOGY			
Educational Media Technology	4	0	4
Op. Maint & Rep of AV Equip.	25	3	28
TOTAL	29	5	32

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Audio-Visual Specialists	8

↑COMMENTS: Supply is four times greater than demand. Monitor placement.

PRINTING & GRAPHIC ARTS			
Graphic & Printing Communication	1,021	11	1,032
Typesetting, Make-up & Comp.	3	0	3
Lithog, Photog. & Platemaking	126	624	750
Printing Press Operations	13	7	20
Silk Screen Making & Printing	9	160	169
Graphic Arts Technology	0	1	1
TOTAL	1,172	803	1,975

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Etchers & Engrav., Hand or Ma.*	5	AO Print. Press Set. & Set-up	36
Compositors, Typeset., & Arran	43	Photoen. & Litho. Photographer	52
Job Printers	49	Spec. Mat. Print. Mach. Set.	37
Lithog. & Photoengr. workers	152	Screen Pr. Mach. Set. & Set-up	30
Bookbinders	42	AO Print. Rel. Set. & Set-up	23
AO Precision Printing Workers	2	Typeset. & Comp. Mach. Oper.	84
Print. Press Machine Setters	24	Printing Press Machne Oper.	250
Offset Litho. Press Setters	191	Photo eng. & Lithog. Mach Oper.	16
Letterpress Set. & Set-up Op.	23	AO Print., Bind., & Rel. Wkr.	58
Engraving & Print. Wkr., Hand.	14		
		TOTAL	1,131

↑COMMENTS: Supply exceeds demand. Monitor placement and review programs with occupational need.

DESIGN			
Ornamental Horticulture*	13	0	13
Art Graphic Design	0	3	3
Fashion Design	53	17	70
Floral Design	0	355	355
Design, General	0	124	124
Graphic Design	85	49	134
Illustration Design	8	0	8
Industrial Design	0	25	25
Theatre Design	0	4	4
Design, Other	0	1	1
TOTAL	159	578	737

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers

(cont'd)

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Designers, Ex. Interior Design	453

↑COMMENTS: Supply exceeds demand. Majority of supply is proprietary and university. Follow up student placement to better determine employment being obtained.

INTERIOR DESIGN

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Inerior Design	213	59	272
Home Decorating	59	0	59
TOTAL	272	59	331

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Interior Designers	26

↑COMMENTS: Supply exceeds demand. Follow up program completers to determine occupational employment they are obtaining. Programs may need substantial revision or elimination.

ARCHITECTURE

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Architecture & Environ Design	0	125	125
Architecture	0	227	227
Environmental Design	0	62	62
Landscape Architecture	0	29	29
Arch. Design & Construct. Tech.	65	1	66
TOTAL	65	444	509

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Architects, Ex. Land. & Mar.	194

↑COMMENTS: Most of supply is degree and graduate. Monitor placement and review program content to determine the actual preparation occurring.

CIVIL TECHNOLOGY

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Civil Technology	27	30	57
Surveying & Mapping Technology	12	32	44
TOTAL	39	62	101

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Survey & Map Scientists	25	Surveying & Map Technicians	58
Civil Engineering Technicians	89	TOTAL	172

↓COMMENTS: Demand exceeds supply.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
DRAFTING			
Drafting & Design Technology	31	0	31
Marine Propulsion Technology	50	0	50
Computer-aided Design	65	0	65
Drafting, General	2,235	112	2,347
Architectural Drafting	91	18	109
Civil/Structural Drafting	0	15	15
Mechanical Drafting	87	6	93
TOTAL	2,447	151	2,710

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Drafters	142

↑COMMENTS: Appears to be a substantial oversupply of completers. Assess program content and review job availability. Monitor placement.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
MECHANICAL DESIGN			
Mechanical Design Technology	83	0	83

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Mechanical Engineering Tech.	131

↓COMMENTS: Supply provides about 60% of demand. Possible expansion program.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
BIOMEDICAL EQUIPMENT TECHNOLOGY			
Biomedical Equipment Technology	4	7	11

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Electromed. & Biomed. Eq. Rep.	12

↔COMMENTS: Supply and demand are nearly equal.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
INSTRUMENATION TECHNOLOGY			
Instrumentation Technology	20	3	23
Microprecision Technology	7	0	7
Instrument Repair	1	39	40
TOTAL	28	42	70

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Precision Instrument Repairers	236	Mech. Cont. & Valve In. & Rep.	35
Elect. Meter Inst. & Rep.	25	Electromechan. Eq. Assemblers	51
		TOTAL	347

↓COMMENTS: An area of possible program expansion. Instructional programs should align with occupations in demand.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
NUMERICAL CONTROL			
Electromechanical Technology	8	0	8
Robotics Technology	20	0	20
Energy Conserv & Use Tech.	29	0	29
TOTAL	57	0	57

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Programmers, Numer., Tool, etc.	9

↑COMMENTS: The supply is much greater than the demand. The instructional programs may not be appropriately aligned with demand data.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
INDUSTRIAL & MANUFACTURING TECHNOLOGY			
Automated Manufacturing Technology	18	0	18
Industrial Technology	82	630	712
Manufacturing Technology	0	64	64
TOTAL	100	694	794

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Cost Estimators*	160	Industrial Engineering Tech.	52
		TOTAL	212

↑COMMENTS: There appears to be an oversupply of completers in these occupational clusters. Programs may need to be reviewed to determine alignment with jobs. Placement should be monitored.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
PLASTICS			
Plastics	0	24	24
Plastics	45	0	45
TOTAL	45	24	69

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Plastic Mold. Mach. Op. & Tend.	245

↓COMMENTS: The demand for employment in the occupational cluster exceeds the supply substantially.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
SAFETY/HEALTH/QUALITY CONTROL			
Sanitation Technology	0	2	2
Environmental Cntl Tech.	0	13	13
Safety Technology	0	30	30
Occ. Safety & Health Tech.	6	0	6
Quality Control Technology	30	2	32
Qual Contl & Safety Tech.	0	22	22
Central Supply Technology	2	0	2

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
(cont'd)			
Food Testing	0	9	9
TOTAL	38	78	116

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Compl. & Enforcement Inspector	246	Prod. Inspectors, Test.,	669
Inspectors/Testers/Grad.	351	AO Insp., Test., & Rel. Occ.	30
Misc. Inspection Occupations	7		
		TOTAL	1,303

↓COMMENTS: Demand far exceeds supply, may be an area for possible expansion.

MISCELLANEOUS ENGINEERING & SCIENCE TECHNOLOGY

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Computer Technology	91	0	91
Laser Electro-Optic Technology	9	0	9
Air Pollution Control Tech	0	2	2
Energy Conserv. & Use Tech.	29	0	29
Environmental Control	2	0	2
Plastics Technology	16	0	16
Aeronautical Technology	0	2	2
Automotive Technology	108	0	108
Engineering-Related Tech, Other	0	255	255
Metallurgical Technology	1	0	1
Aviation Electronics	2	0	2
TOTAL	258	259	517

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

AO Engineering Technicians	330	AO Science Technicians*	41
		TOTAL	371

↑COMMENTS: The placement in these programs should be monitored carefully. Supply exceeds demands. Demands may be localized. Demand descriptions are inconclusive.

AUTOMOTIVE MECHANICS

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Automotive Mechanics	3,623	444	4,067

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Auto & Motorcycle Mechanics	1,926

↑COMMENTS: Placement review should be conducted. Related occupations in which employment is secured should be reviewed for possible additions to content. Demand data may not reflect demand for a high skilled mechanic. Some enrollment could be for personal interest. Demand represents a high rate of separations.

PETROLEUM TECHNOLOGY

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Petroleum Technology	1	68	69

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
(cont'd)			

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Rotary Drill Op., Oil & Gas	7	Gaugers	5
Derrick Operators, Oil & Gas	8	Tank Car & Truck Loaders	5
Service Unit Operators	7	Oil Pumpers, Ex. Well Head	8
Roustabouts	7	Well Head Pumpers	9
Petrol. Ref. & Contr. Panel Op.	17		
		TOTAL	73

↔COMMENTS: Instructional program may be providing higher level of skills than required by the jobs available.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
COAL MINING TECHNOLOGY			
Coal Mining Technology	17	0	17
Mining Equipment Operation	40	0	40
TOTAL	57	0	57

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Mine Machinery Mechanics	25	AO Mining Machine Operators	3
Roof Bolters	10	Rail yd. Eng., Dinkey Op.,	22
Continuous Mining Mach. Operator	15	Load Mach. Op., Undergr. Mine	1
Mine Cutting & Channel. Mach.	0	Shuttle Car Operators	15
		TOTAL	91

↓COMMENTS: Declining occupational employment.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
BRICK, BLOCK & STONE MASONRY			
Brickmasonry & Stonemasonry	0	13	13
Brickmasonry & Stonmasonry	0	10	10
Brick, Block, & Stonemasonry	14	0	14
TOTAL	14	23	37

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Brick Masons	342	Stone Masons	20
		TOTAL	362

↓COMMENTS: About 1/10 of demand is supplied. May be a potential expansion area.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
CARPENTRY			
Carpentry	0	66	66
Carpentry	298	132	430
Construction Trades, Other*	11	0	11
TOTAL	309	198	507

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers

(cont'd)

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Carpenters	1,962	Ceil. Tile Inst. & Acous. Carp.	30
Roofers	222	TOTAL	2,214

↓COMMENTS: Supply falls short of demand. An occupational growth area with potential for possible program expansion.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
ELECTRICAL SERVICES			
Electrical Installation	0	3	3
Electric & Power Trans Install	44	0	44
Electrician	160	93	253
Lineworker	6	92	98
TOTAL	210	188	398

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Signal or Track Switch Maint.	6	Elect. Installers & Repairers	1
Tel. & Cble TV Line In. & Rep.	105	Electricians	1,028
Electrical Powerline Installer	33	TOTAL	1,173

↓COMMENTS: Demand exceeds supply. A fairly rapid expansion in employment. May consider for program expansion.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
CONSTRUCTION INSPECTION			
Construction trades, Other*	11	0	11

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Const. & Bldg. Inspectors	162

↓COMMENTS: Demand exceeds supply, as in other areas of construction.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
DRYWALL INSTALLATION			
Drywall Installation	3	0	3

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Drywall Installers	42	Lathers	14
Tapers	14	TOTAL	70

↓COMMENTS: Small employment overall.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
PAINTING & DECORATING			
Painting & Decorating	22	28	50

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers

(cont'd)

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Painters & Paperhangers, Const.	715

↓COMMENTS: Demand exceeds supply. Potential area of expansion.

PLUMBING & PIPEFITTING

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Plumbing, Pipefit & Steamfit	0	25	25
Plumbing, Pipefit & Steam fit	14	0	14
Pipefitting & Steamfitting	1	4	5
Plumbing	1	26	27
TOTAL	16	55	71

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Plumbers, Pipefitters, & Steam	953	Pieplayers	49
Pipelaying Fitters	1	Sept. Tank Serv. & Sewer Pipe	8
		TOTAL	1,011

↓COMMENTS: Demand is 14 times greater than supply. An area for possible program expansion.

ELECTRICAL & ELECTRONICS TECHNOLOGY

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Electrical Technology	0	41	41
Electronic Technology	1,863	488	2,351
Electricity/Electronics	0	305	305
TOTAL	1,863	834	2,697

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Electri. & Electro. Tech.	663

↑COMMENTS: Appears to be a substantial oversupply. Study completion data to determine if placements are as technicians or in a lower skill level. Some program alignment may be necessary.

COMPUTER & OFFICE EQUIPMENT REPAIR

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Computer Servicing Technology	48	126	174
Business Machine Repair	7	2	9
Computer Electronics	162	175	337
TOTAL	217	303	520

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Data Process. Equi. Repairers	55	Off. Mach. & Cash Reg. Serv.	46
Electron. Rep., Commerc. & Ind.*	19	Coin & Vend. Mach. Serv. & Rep.	60
		TOTAL	180

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
(cont'd)			

†COMMENTS: Review placement. The supply exceeds the demand considerably.

COMMUNICATIONS TECHNOLOGY

Electrical & Electronic Eq. Rep*	6	272	278
Communication Electronics	675	249	924
Elect/Electronic Eq. Rep., Other	0	132	132
TOTAL	681	653	1,334

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Central Off. & PBX Inst. & Rep.	183	Elec. Home Enter. Eq. Repairer	132
Frame Wirers, Central Office	16	Electron. Rep., Commer. & Ind.*	19
Radio Mechanics	21	Station Installers & Repairers	27
AO Comm. Eq. Mech., In., & Rep.	2		
		TOTAL	400

†COMMENTS: Supply exceeds demand. Military provides about 1/4 of supply. Placement should be monitored to determine need. Geographic demands may justify supply.

INDUSTRIAL ELECTRONICS

Electrical & Electronic Eq. Rep.*	6	272	278
Industrial Electronics	651	1	652
TOTAL	657	273	930

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Electron. Re., Commer. & Ind.*	19	Electrical & Electronic Assemb.	167
Electro. Semicond. Processors	0	Coil Winders, Tapers, & Finish	72
Elec. & Elec. Eq. Assemblers	180		
	TOTAL		438

†COMMENTS: Review placement and skill levels of both supply and demand.

MAJOR & SMALL APPLIANCE REPAIR

Major Appliance Repair	18	41	59
Small Appliance Repair	4	0	4
TOTAL	22	41	63

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Mach. Maint. Mec., Sew. Mach.*	1	Home Appl. & Power Tool Rep.	160
		TOTAL	161

↓COMMENTS: Demand is greater than supply. Employment in occupation is fairly small.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
MOTOR REPAIR			
Motor Repair	9	0	9

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Elec. Motor & Transf Repairer	47

↓COMMENTS: Small field of employment.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
A/C, REFRIGERATION & HEATING MECH.			
A/C, Heating & Refrig. Tech.	0	26	26
Heating, A/C & Refrig. Mech.	0	10	10
Heating, A/C & Refrig. Mech.	366	348	714
Cooling & Refrigeration	0	27	27
Heating & Air Conditioning	0	37	37
TOTAL	366	448	814

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Heat., A/C & Refrig. Mech. & I.	382	Sheet Metal Dut Installers	6
		TOTAL	388

↑COMMENTS: Supply is two times greater than demand. Placement should be reviewed to determine level of jobs completers acquire.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
HEAVY EQUIPMENT MAINTENANCE & REPAIR			
Heavy Equipment Maint. & Repair	22	62	84
Vehicle & Mobile Eq. Mech. & Repair	807	0	807
Diesel Engine Mechanics	48	932	980
TOTAL	877	994	1,871

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Bus & Truck Mech. & Dies. Spec.	293	Mobile Heavy Equipment Mechanics	95
		TOTAL	388

↑COMMENTS: Placement should be reviewed to determine the kinds of employment completers are obtaining. Supply is considerably greater than demand.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
INDUSTRIAL MACHINE MAINTENANCE & REPAIR			
Industrial Equip. Maint. & Repair	7	0	7
Industrial Mach. Maint. & Repair	55	172	227
TOTAL	62	172	234

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Indusrial Machinery Mechanics	202	Millwrights	174

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers

(cont'd)

Mach. Maint. Mec., Tex. Mach.	3	Machinery Maintenance Workers	107
Mach. Maint. Mech., Sew. Mach.*	1	Textile Mach. Set. & Set-up Op.	7
AO Mach. Maint. Mechanics	142		
		TOTAL	636

↓COMMENTS: Supply is not as great as demand. Employment is declining.

POWER & WATER UTILITIES

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Water & Wastewater Tech.	11	9	20
Nuclear Power Plant Op. Tech.	44	19	63
Stationary Energy Sources	2	19	21
Conventnl Electric Power Gener.	0	2	2
TOTAL	47	59	106

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Mach. Maint. Mec., Water/Pow	73	Power Distributors & Dispatchers	65
Water & Liq. Waste Treat. Pl.	202	Stationary Engineers	228
Aux. Equip. Operators, Power	8		
		TOTAL	576

↓COMMENTS: Demand exceeds supply. Other completers are all military separations. May be an area for expansion.

AIRCRAFT MECHANICS

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Aircraft Mechanics/Avionics	257	661	918
Aircraft Mechanics, Airframe	0	2	2
Aircraft Mechanics, Powerplant	0	2	2
Air Transportation, Other*	7	40	47
TOTAL	264	705	969

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Aircraft Mech. & Engine Spec.	70	Aircraft Assemblers, Precision	4
		TOTAL	74

↑COMMENTS: Supply far exceeds demand. Most of other supply comes from military separations. Placement should be reviewed.

AUTOMOTIVE BODY REPAIR

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Automotive Body Repair	753	250	1,003

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Auto. Body & Rel. Repairers	384	Painters, Transportation Equip.	30
		TOTAL	414

↑COMMENTS: Supply far exceeds demand. Placement should be reviewed.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
SMALL ENGINE REPAIR			
Small Engine Repair	186	47	233

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Small Engine Specialists	50

↑COMMENTS: Supply exceeds demand. Placement should be monitored.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
FOUNDRY			
Foundry Work	7	0	7

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Refractory Material Repairers	2	Foundry Mold Assemb. & Shakeout	7
Foundry Mold & Core Makers	52	Furnace Operators & Tenders	62
Met. Mold. Mach. Set. & Set-Up	20	Metal Pourers & Casters, Basic	11
Metal Molding Mach. Op. & Tend.	43		
		TOTAL	197

↓COMMENTS: Demand exceeds supply. Growth and employment are declining. Demand is from separations.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
MACHINE TOOL OPERATIONS			
Precision Metal Work*	138	0	138
Machine Tool Op/Mach. Shop	845	85	930
TOTAL	983	85	1,068

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Instrument Makers, Precision	13	Ext. & Draw. Ma. Set. & Set-up	14
Machinists	613	Rolling Mach. Set. & Set-up	41
Tool Grinders, Filers, etc.	94	Forging Mach. Set. & Set-up	10
Layout Workers, Metal	27	Machine Forming Op. & Tend.	326
AO Precision Metal Workers*	11	Num. Cont. Mach. Tool Op. & Te.	95
Sawing Mach. Tool Set. & Set-up	16	Comb. Mach. Tool Set. & Set-up	108
Lathe Mach. Tool Set. & Set-up	83	Comb. Mach. Tool Op. & Tend.	140
Drill. Mach. Tool Set. & Set-up	51	Plas. Mold. Mach. Set. & Set-up	85
Milling Mch. Set. & Set-up Op.	24	Heat. Equip. Set. & Set-up Op.	18
Grinding Mach. Set. & Set-up	87	Heat Treating Mach. Op. & Tend.	44
Mach. Tool Cut. Op. & end.	165		
		TOTAL	2,065

↓COMMENTS: Demand exceeds supply, however, employment is declining. Over 5,000 jobs will be lost by 1995. Programs should be reviewed for alignment and modernization as related to demand.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
SHEET METAL			
Precision Metal Work*	138	0	138
Sheet Metal	39	4	43
TOTAL	177	4	181

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
(cont'd)			

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Sheet Metal Workers	330	Press Mach. Set. & Set-up Op.	52
AO Precision Metal Workers*	11	Shear Mach. Set. & Set-up Op.	30
Punch. Mach. Set. & Set-up Op.	93		
		TOTAL	516

↓COMMENTS: Declining employment. Programs should monitor employment needs carefully.

TOOL & DIE MAKING

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Precision Metal Work*	138	0	138
Tool & Die Making	50	0	50
TOTAL	188	0	188

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Tool & Die Makers	409	AO Precision Metal Workers	11
Pattern & Model Makers, Metal	13		
		TOTAL	433

↓COMMENTS: Demand exceeds supply. Decline in employment is expected.

WELDING, BRAZING & SOLDERING

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Welding Technology	70	0	70
Precision Metal Work*	138	0	138
Welding	839	438	1,277
TOTAL	1,047	438	1,485

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

AO Precision Metal Workers*	11	Solder. & Braz. Mach. Opertor	27
Welding Machine Set. & Set-up	90	Welders & Cutters	268
Welding Machine Oper. & Tend.	86	Solderers & Brazers	26
Solder. & Braz. Mach. Setters	20		
		TOTAL	528

↑COMMENTS: Supply is far greater than demand. Placement should be reviewed to determine type of jobs being obtained.

JEWELRY & WATCH DESIGN, REPAIR

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
Watch Repair	7	0	7
Jewelry Design, Fab & Repair	3	0	3
TOTAL	10	0	10

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Watchmakers	49	Etchers & Engrav., Hnad or Ma.*	5
Jewelers & Silversmiths	47	Gem & Diamnd Workers	2

(cont'd)

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
(cont'd)			

Hand Workers, Jewelry & Rel.	7	Watch & Clock Assemblers	2
		TOTAL	112

↓COMMENTS: Small employment. Some decline within cluster.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
UPHOLSTERY			
Upholstering	3	14	17

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Upholsterers	105

↓COMMENTS: Small employment field.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
MILLWORK & CABINET MAKING			
Millwork & Cabinet Making	209	0	209

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Precision Woodworkers, Trade I	8	Sawing Machine Set. & Set-up	6
Pattern & Model Makers, Wood	24	Head Sawyers	2
Wood Machinists	123	Sawing Machine oper. & Tend.	25
Cabinetmakers & Ben. Carpenter	325	Woodwork. Mach. Set. & Set-up	19
Furniture Finishers	137	Woodworking Mach. Oper. & Tend.	30
AO Precision Woodworkers	1		
		TOTAL	700

↓COMMENTS: Demand exceeds supply. Substantial employment with little growth.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
MATERIAL HANDLING			
Material Handling	69	0	69

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Conveyor Operators & Tenders	38	Freight/Stock/Material Movers	297
		TOTAL	335

↓COMMENTS: Sizeable employment with little change. Demand is from separation.

Program	Voc. Ed. Completers	Other Completers	Total Supply of Completers
AIRPLANE PILOTING & NAVIGATION			
Airplane Piloting & Navigation	15	191	206
Airplane Piloting (Private)	0	557	557
TOTAL	15	748	763

RELATED OCCUPATIONAL AVERAGE ANNUAL OPENINGS

Aircraft Pilots & Fl. Engineer	142

↑COMMENTS: Supply is greater than the demand, with most supply from proprietary sources.

PART THREE

ICoVE'S CONCLUSIONS, SUGGESTED ACTIONS, AND RECOMMENDATIONS

CONCLUSIONS

Throughout the report ICoVE has summarized subsections, therefore, these conclusions represent highlights and broad conclusions of the Council.

ADEQUACY OF THE SYSTEM

EXPAND, IMPROVE, MODERNIZE AND DEVELOP QUALITY VOCATIONAL EDUCATION PROGRAMS

- Two major systems are used to enhance quality vocational education. At the State level, statewide projects are funded for improvement initiatives. Most state-level projects focus on development and dissemination of improvement efforts. At the regional or district level, the program improvement plan, including the QAP process and equipment funds gives regions and districts responsibility for assessing and determining needed improvement efforts to align programs and services with the State Board's EFE policy.

- A wide array of improvement efforts are occurring throughout Illinois. The efforts seem to lack identifiable focus. All ultimately lead toward implementation of the EFE policy, but recognizable progression toward an outcome or resulting impact is unclear. New strategies surface somewhat sporadically making it difficult for those in the field to differentiate between end products and intermediate processes.

- Resources are appropriately (as per Perkins Act) assigned for program improvement. State and local funds augment federal resources. Several needs, both statewide and area-specific, go unfilled in terms of program improvement, i.e. instruction, equipment, curriculum. Efficiency, as exhibited through consortium efforts, surfaces throughout. Without adequate result information, concern for inefficiency may continue to surface.

EXISTING AND FUTURE WORKFORCE NEEDS FOR MARKETABLE SKILLS, IMPROVED PRODUCTIVITY AND ECONOMIC DEVELOPMENT

- Programs to meet the needs of the existing workforce are primarily localized efforts targeting immediate needs of the employer, the entrepreneur or small business person, or dislocated workers (in coordination with JTPA). Regions or districts may design programs to meet worker needs in the area.

- State thrusts are provided through the HITS programs and the business centers in community colleges, but no other major initiatives (excep special projects locally designed) were identifiable.

- The State Board concentrates most of its efforts on the future workforce. The Community College Board focuses the majority of its efforts on the future workforce, but a major portion also targets existing workers. No clear plan for serving the existing workforce is in place in Illinois.

- Use of labor market information to identify immediate and future workforce needs has increased considerably in recent years. Aligning programs and program content with the identified needs continues to be a concern, but the awareness level appears to have improved. Cooperation among a variety of state agencies in efforts to improve LMI is commendable.

- Private-sector involvement in programs at the grassroots level is as effective as those involved make it. The State Board has required some private-sector involvement, but it does not permeate the system in an ongoing process.

- The results of efforts to improve productivity are intangible. Program materials, e.g. task lists, instructional materials, have been developed. The extent to which these are fully integrated and making an impact is unclear.

- Economic development is enhanced in Illinois by vocational education's efforts to prepare workers for employment. A system is established to help new and expanding businesses prepare or update their workforce. Entrepreneurship has been given considerable priority in development and implementation.

EFFECTIVENESS OF THE SYSTEM

EXPAND, IMPROVE, MODERNIZE, AND DEVELOP QUALITY VOCATIONAL EDUCATION PROGRAMS

- The regional or district plan for program improvement is effective in giving responsibility for identifying and determining needed program improvement efforts unique to the region or district. The QAP portion of the plan designs instructional improvement and staff development needs. Nearly half of the vocational education instructional staff (46%) are affected by a QAP activity each year.

- The VIP has identifiable outcomes as noted by changes made in programs as a result of the experience. A system for collecting outcome data is not in place. Expansion of the VIP to include guidance counselors and administrators has not yet reached its potential.

- Program offerings at the district and regional levels are constantly changing. Changes continue to be student-driven (interest and enrollment) at the secondary level. The use of labor market information in determining changes at the postsecondary level has been somewhat substantial.

- Enrollment in vocational education at the secondary level is not decreasing as rapidly as the total secondary enrollment.

- The decline in vocational education enrollment in community colleges is at a faster rate than the decline of the total community college enrollment.

- Enrollment growth exists in programs offered through state agencies.

- Adult programs have had the largest decline in participation.

- Programs designed to serve unique individual needs include special needs programs, cooperative education, apprenticeship, and consumer and homemaker education programs.

- Incompatibility of data collected within vocational education, as well as with other education and training programs, prohibits determining all expansion which is occurring. The lack of outcome, result, or impact information makes quality determinations impossible.

EXISTING AND FUTURE WORKFORCE NEEDS FOR MARKETABLE SKILLS, IMPROVED PRODUCTIVITY, AND ECONOMIC DEVELOPMENT

- Enrollments in training-level programs, as well as in the orientation level and individual courses for updating skills or acquiring skills, align in broad, general terms with both industrial employment projections and occupational employment projections.

- Some supply-demand information indicates that careful attention should be given to not overtraining in some specific occupational areas. Some areas of training appear to be overtraining in lower level skills and undertraining in highly skilled areas of the same occupational cluster.

- Data are incomplete and insufficient to assess adequately the skills or occupational clusters in which all students are receiving Education for Employment. Special programs (operating through contracts resulting from the RFP process) do not identify instructional programs and are not part of the reported Illinois enrollment in vocational education.

- Data are particularly inadequate for adult vocational education. The extent to which the existing workforce served receives retraining, upgrading, or new occupational skills is unknown.

- Programs for the existing workforce are more employer-driven than worker-driven. Programs to help the existing workforce develop a broad comprehension of technology and its impact on current and future jobs, concepts basic to improved productivity, and new processes being used in the workplace today are not widespread.

- Placement data are not collected on program completers to determine whether or not they are getting and keeping jobs.

- No assessment pertaining to employment, job advancement, job retention, improved productivity, enhanced basic skills and other elements critical to determining program improvement is available.

SUGGESTED ACTIONS AND RECOMMENDATIONS

RECOMMENDATIONS

The Illinois Council on Vocational Education recommends that the Illinois State Board of Education:

- Provide state leadership for full implementation and fine tuning of the Education for Employment Policy and administrative plan so that once in place, the system will provide an articulated, well-defined mechanism for ongoing program improvement and responsiveness to the existing and future workforce needs.
- Identify program results to determine the extent to which program quality and efficiency exist.

SUGGESTED ACTIONS

- Develop a plan for program improvement to provide leadership and clear direction for regional and district efforts and identify the desired results.
- Clearly focus state-level efforts so the grassroots can visualize how state and local efforts accomplish compatible missions.
- Use a task force to help identify state-level program improvement activities which would be useful to the RDSs and community colleges in meeting their program improvement needs as part of the State's plan.
- Collect placement and longitudinal follow-up data for planning and assessment purposes.
- Incorporate all vocational education participation and result data into one data system in order to present an all-encompassing profile of vocational education programs, services, and activities including accompanying results.
- Streamline processes wherever possible to extend limited program improvement resources needed for meeting priority needs of the community college districts.
- Conduct a thorough assessment of efforts and results in RDSs and community colleges pertaining to services for the adult population regarding upgrading, retraining, maintaining, or developing

occupational skills. Use the results as a basis for developing a plan to enhance vocational education's programs for this population and evaluate the impact.

- Encourage expanding the VIP (internship) program to include all teachers and administrators in addition to vocational education staff.
- Continue to provide in-service education to the RDSs and community colleges for using labor market information in the selection and design of programs.
- Strengthen and increase requirements for private-sector involvement in programs, services, and activities.
- Establish a method to determine the extent to which vocational education is improving worker productivity and worker skills.
- Continue to encourage use of private-sector facilities and equipment as a means of providing instruction on up-to-date equipment.
- Use information from follow-up data to help design appropriate retention mechanisms.

RESOURCES

DuPage and Kane Counties Education Service Center. *Vocational Instructor Practicum Program.* Fall, 1988

Illinois Community College Board. *Illinois Community College Prepare Students for the Workplace of the Future with Advanced Technology Equipment, Annual Report FiscalYear 1988, Advanced Technology Equipment Grants, November 1988.* Springfield, IL.

------ *Illinois Community College System Data and Characteristics.* Springfield, IL. May, 1988.

------ *Report on Community College Program Review, Fiscal Year 1988.* Agenda Item #10. Springfield, IL. December 2, 1988.

Illinois Council on Vocational Education. Transcripts and notes from VIP evaluation sessions involving VIP participants, private-sector VIP sponsors, Education Service Center personnel, local administrators. Springfield, IL.

Illinois Department of Employment Security. Occupational Employment Statistics Section, Bureau of Program and Planning. Division of Economic Information and Analysis. *Occupational Projections, State of Illinois 1984-1985.* Springfield, IL.

------ *Target: 1999 A Preliminary Look at the Composition of the Illinois Labor Force in the Year 1999.* Springfield, IL. Spring 1988.

Illinois Occupational Information Coordinating Committee. *Illinois Occupational Information System (OIS) Supply-Demand Report. Springfield, IL.* June 1988.

Illinois State Board of Education. Department of Adult Vocational Technical Education. *FY 88 Quality Assistance Log.* Unpublished Data. Springfield, IL. December 3, 1987.

------ FY 87 and FY 88 Vocational Education Data System (VEDS) Report. Unpublished Data. Springfield, IL. August 1987 and January 1989.

------ *Vocational Education Program Improvement Quality Assistance Plan, FY 89.* Springfield, IL.

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